DOCUMENT RESUME

ED 106 990 EA 007 186

TITLE Plan for Implementation of Extended School Year.
INSTITUTION Brick Town Township Board of Education, N.J.
PUB DATE 14 May 75
NOTE 181p.; A related document is ED 091 864; Illustrations 2.1, 2.7-2.9, 3.2-3.9, 4.0, and 4.1 may reproduce poorly

EDRS PRICE MF-$0.76 HC-$9.51 PLUS POSTAGE
DESCRIPTORS Advisory Committees; *Change Strategies; Community Attitudes; Community Surveys; Course Content; *Curriculum Development; Educational Alternatives; Educational Finance; *Educational Planning; *Educational Strategies; Elementary Education; Evaluation Methods; Expenditures; *Extended School Year; Information Dissemination; Pilot Projects; School Organization; School Schedules

ABSTRACT

Presenting a 45/15 extended school year plan for one New Jersey elementary school, this study includes plans, strategies, and materials used to provide public information; surveys of community attitudes; and evaluation of a pilot project. The school year calendar, pupil and teacher schedules, teacher inservice, and problem issues are presented with illustrations. The curriculum outlines for kindergarten, language arts, mathematics, social studies, science, and special areas are related to the four quarters of the extended school year plans, and provide organization for accommodating the proposed change. Finally, financial implications are presented with comparative cost figures of operational and capital outlay expenditures that show cost benefits. The advisory committee report recommends not implementing the proposed extended school year plan. (DW)

ED106990

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY.

PLAN FOR IMPLEMENTATION OF EXTENDED SCHOOL YEAR MAY 14, 1975

Frederick J. Underwood
Project Director

BRICK TOWNSHIP PUBLIC SCHOOLS
300 Chambers Bridge Road
Brick Town, New Jersey 08723

EA 007 136

TABLE OF CONTENTS

CHAPTER		Page
I.	INTRODUCTION	1
	PURPOSE OF STUDY	1
	STRATEGY EMPLOYED IN DEVELOPING THE PLAN	2
	LIMITING FACTORS DURING THE STUDY	6
II.	PUBLIC INFORMATION PHASE	9
	PLAN OF ATTACK	9
	TOPICS COVERED WITH COMMUNITY	14
III.	RESEARCH PHASE	35
	PLAN OF ATTACK	35
	COMMUNITY ATTITUDE ABOUT ESY DURING THE DEVELOPMENT OF THE PLAN FOR IMPLEMENTATION	35
	PRESENTATION OF INSTRUMENTS TO CONTINUALLY EVALUATE DEGREE OF ACCEPTANCE OF PILOT PROJECT ON THE PART OF STUDENT, PARENTS, AND TEACHERS	49
IV.	ORGANIZATION OF PLANT PHASE	51
	PRESENTATION OF CALENDAR	51
	PUPIL, TEACHER SCHEDULES	52
	ADDITIONAL NON-PROFESSIONAL PERSONNEL	56

Page

CHAPTER

TEACHER RECRUITMENT AND IN-SERVICING 57

IN-HOUSE PROBLEMS AND PROPOSED SOLUTIONS. 59

NEGOTIATIONS 63

V. THE PILOT PROJECT EVALUATION DESIGN. . . . 65

ESY EVALUATION DESIGN: GOALS AND PROCEDURES 71

Goals. 71

Procedures: Test Groups 71

Procedures: Control of Variables. . . 74

Test Instruments 79

Test Scheduling. 81

ESY EVALUATION DESIGN: Data Analysis 82

Pre-Test Data Analysis 82

Post-Test Data Analysis. 82

SUMMARY. 83

VI. CURRICULUM AND INSTRUCTION 86

THE FOUR-QUARTER CURRICULUM. 90

The Kindergarten Program 92

The Language Arts Program. 95

Page

CHAPTER

The Mathematics Program 104

The Social Studies Program. 111

The Science Program 116

The Special Area Program. 121

SMILE: AN INTERSESSION PROGRAM. 126

VII. FINANCIAL IMPLICATIONS 129

OVERVIEW OF OPERATING COSTS RELATED TO OPERATING LANES MILL SCHOOL ON AN ESY SCHEDULE. 129

OVERVIEW OF CAPITAL EXPENSES RELATED TO IMPLEMENTATION OF ESY IN LANES MILL SCHOOL. 157

VIII. RECOMMENDATIONS OF THE CITIZENS ADVISORY COUNCIL 160

APPENDIXES 161

A. COST BREAKDOWN: TEST MATERIALS FOR ESY PILOT PROJECT: GRADE ONE. 162

B. COST BREAKDOWN: TEST MATERIALS FOR ESY PILOT PROJECT: GRADE TWO. 163

C. SAMPLE SMILE PACKET LETTER TO PARENTS. . . 164

D. SAMPLE SMILE PACKET FEEDBACK FORM. 165

E. SAMPLE SMILE PACKET GENERAL INSTRUCTIONS SHEET. 166

F. SAMPLE SMILE PACKET ACTIVITY SHEET-A READING SKILL. 167

LIST OF ILLUSTRATIONS

Illustration		Page
2.1	Last Revised Schedule of Meetings	10
2.2	Brochure used at First Meeting.	12
2.3	Brochure used at Second Meeting	13
2.4	Brochure used at Third Meeting.	15
2.5	Agenda for First Public Information Meeting	17
2.6	Sample SMILE Packet Page.	19
2.7	Sample SMILE Packet Page.	20
2.8	Sample SMILE Packet Page.	21
2.9	Sample SMILE Packet Page.	22
2.10	Agenda for Second Public Information Meeting.	23
2.11	Pupil Enrollment.	25
2.12	Per Pupil Cost Projections.	26
2.13	Capital Expense Comparison Brochure	29
2.14	Year-Round Energy Consumption Heat Versus Air-Conditioning.	33
2.15	Agenda for Third Public Information Meeting	34
3.1	Background Information for ESY Program.	36
3.2	Choices of Kindergarten and First Grade Parents in Veterans Memorial Elementary School.	38
3.3	Choices of Second and Third Grade Parents in Veterans Memorial Elementary School.	39

Illustration Page

3.4 Choices of Fourth Grade Parents and Combined Choices of all Responding Veterans Memorial Parents 40

3.5 Choices of Kindergarten and First Grade Parents in Lanes Mill School 41

3.6 Choices of Second and Third Grade Parents in Lanes Mill School. 42

3.7 Choices of Fourth Grade Parents and Combined Choices of all Responding Lanes Mill Parents. 43

3.8 Combined Results of Both Schools 44

3.9 Analysis of all Respondents to Question 5. . . 45

4.0 Extended School Year Parent Opinion Survey . . 48

4.1 45/15 Calendar Designed for Brick Township . . 53

LIST OF TABLES

Table		Page
6.1	Kindergarten Curriculum-Academic Readiness Quarter-Year Unit Plan.	94
6.2	Language Arts/Composition-Our Language Today ESY Quarter-Year Unit Plan Grade One.	100
6.3	Language Arts/Composition-Our Language Today ESY Quarter-Year Unit Plan Grade Two.	101
6.4	Language Arts/Composition-Our Language Today ESY Quarter-Year Unit Plan Grade Three. . . .	102
6.5	Language Arts/Composition-Our Language Today ESY Quarter-Year Unit Plan Grade Four	103
6.6	Language Arts/Composition-Our Language Today ESY Quarter-Year Unit Plan Grade Five	103
6.7	Sample Pacing Chart-Holt School Mathematics . .	107
6.8	Mathematics Curriculum-Exploring Elementary Mathematics ESY Quarter-Year Unit Plan Grade Three	109
6.9	Mathematics Curriculum-Exploring Elementary Mathematics ESY Quarter-Year Unit Plan Grade Four.	110
6.10	Mathematics Curriculum-Exploring Elementary Mathematics ESY Quarter-Year Unit Plan Grade Five.	110
6.11	Social Studies-Concepts in Social Studies ESY Quarter-Year Unit Plan Grade One.	112
6.12	Social Studies-Concepts in Social Studies ESY Quarter-Year Unit Plan Grade Two.	113
6.13	Social Studies-Concepts in Social Studies ESY Quarter-Year Unit Plan Grade Three. . . .	113

Table		Page
6.14	Social Studies-Exploring New Jersey ESY Quarter-Year Unit Plan Grade Four	114
6.15	Social Studies-Exploring Regions of the United States ESY Quarter-Year Unit Plan Grade Five	115
6.16	Science Curriculum-Concepts in Science ESY Quarter-Year Unit Plan Grade One	117
6.17	Science Curriculum-Concepts in Science ESY Quarter-Year Unit Plan Grade Two	117
6.18	Science Curriculum-Concepts in Science ESY Quarter-Year Unit Plan Grade Three	118
6.19	Science Curriculum-Concepts in Science ESY Quarter-Year Unit Plan Grade Four.	119
6.20	Science Curriculum-Concepts in Science ESY Quarter-Year Unit Plan Grade Five.	120
6.21	Science Curriculum-Grades 1 to 5 ESY Quarter-Year Unit Plan-Modern Elementary Science	120
6.22	ESY Art Curriculum Three Week Unit Plan	123
6.23	ESY Music Curriculum Three Week Unit Plan	124
6.24	ESY Physical Education Curriculum Three Week Unit Plan	125
7.1	Traditional Calendar 640/180 days (Hypothetical)	131
7.2	Existing Calendar 668/180 days (Actual)	132

Table | Page

7.3 ESY Calendar 850/180 days (Projected) 133

7.4 Summary Chart of Costs 134

CHAPTER I

INTRODUCTION

PURPOSE OF STUDY

The purpose of this study is to present to the Brick Township Board of Education a plan by which a 45/15 Extended School Year calendar can be implemented in the Lanes Mill Elementary School on a one year experimental basis.

All discussion of Extended School Year rests on the desire to solve one of Brick Township Public Schools' basic needs; that is, to come up with a solution to its over-crowded conditions while and at the same time maintain or improve its educational system program.[1]

This study arises out of the recommendations of The Extended School Year Feasibility Study, which was conducted during the 1973/74 academic year. The recommendation of the Feasibility Study was

> "that an action plan be developed for a pilot program in one of the elementary schools. If the results of this plan in-

---

[1] Extended School Year Feasibility Study (Brick Township, New Jersey: 1974), p. 1

> dicate that implementation is possible, the Board may decide to put the program into action. In order to develop this action plan, a committee should be appointed and a target date of no later than June 1975 for final decision should be established".2

Also, the Board received a grant from the New Jersey State Department of Education, in the amount of $23,322.00, to develop the implementation plan during the 1974/75 school year.

With these two facts in mind, the Board of Education, on January 21, 1975, authorized the development of this plan to begin.

STRATEGY EMPLOYED IN DEVELOPING THE PLAN

The Board of Education directed that a plan be developed for implementing a 45/15 ESY calendar in Lanes Mill Elementary School in July, 1975 and that a sufficient number of volunteers be recruited to participate. The plan and the list of participants should be submitted to the Board in May. They would then come to definite conclusions as to the future of ESY at that time.

Two committees were formed. The first committee,

---

2 Ibid., p. 125

called the "Planning Council", consists of five staff members and one Board of Education member. Their names are as follows:

Mr. John J. Boyle, Organization Planner
Mr. Robert A. Jannone, Public Information Planner
Mr. William McGuire, Research Planner
Mr. James H. Napier, Curriculum Planner
Mr. Frederick J. Underwood, Project Director
Mr. Norman Schue, Board of Education Representative

The list of objectives that were assigned to these persons are as follows:

1.1 The Organization Planner will have completed a workable Extended School Year calendar which will be suitable for the project's needs by February 20, 1975.

1.2 The Organization Planner will have established his personnel needs based on the projected total number of students to be in the building if the project were to be fully implemented. This is to be accomplished by February 20, 1975.

1.3 The Research Planner is to have prepared a survey instrument capable of measuring the initial reaction of the affected population, as well as their children's educational requirements. The instrument is to be completed by February 20, 1975.

1.4 The Organization Planner will solicit and acquire a voluntary staff sufficient enough to adequately operate the experimental school. This will be accomplished by March 20, 1975.

1.5 The Research Planner will identify, via survey, the reasons participants selected the Extended School Year Project. This will be

accomplished by interview and written instrument. All data will be analyzed and submitted as a report on April 30, 1975.

1.6 The Research Planner will determine, via survey, the reasons individuals chose not to participate in the Extended School Year Project. All data will be analyzed and submitted as a report on April 30, 1975.

1.7 The Organization Planner will have completed in-servicing the ESY staff in the area of new scheduling practices, curriculum changes, facility modifications, and how these factors relate to the components of the educational system which will be affected by ESY. This will be done with the assistance of the Curriculum Planner by May 15, 1975.

1.8 The Research Planner, via survey, will identify, rate and analyze all relevant attitudes of teachers and other staff members participating in the Extended School Year Program by April 30, 1975.

1.9 The Organization Planner will identify and solve storage, supply, and other in-house problems having to do with the implementation of the ESY calendar before it is instituted.

1.10 The Public Information Planner will develop a program including visual aids for a series of three meetings for ten different groups and assist the Project Director in conducting all of these meetings before May 1, 1975.

1.11 The Public Information Planner will develop a Newsletter and two brochures suitable for distribution at the public information meetings.

1.12 The Curriculum Planner will develop, in conjunction with teacher input, a plan for implementing the current K-5 curriculum with any necessary and appropriate revisions

including intersession activities by April 30, 1975.

1.13 The Curriculum Planner will establish general guidelines for the grade placement of students both present and future by April 30, 1975.

1.14 The Curriculum Planner will prepare a pre- and post-testing plan for those curriculum and instruction items specified in the research design by April 30, 1975.

1.15 The Curriculum Planner and the Organizational Planner will be present at a minimum of 50% each of the public information series of meetings to assist in the answering of questions.

1.16 The Organization Planner and Curriculum Planner will plan, institute, and carry out a series of faculty in-service meetings so that teachers will be capable of operating within an Extended School Year calendar.

1.17 The Organization Planner will compile the list of volunteer families and immediately forward them to the appropriate department within the district if and when the Board of Education gives approval to implement.

The secord committee is called the "Citizen's Advisory Committee". Their names are as follows:

Mr. Charles Dunning, President of Lanes Mill School P.T.A.
Mrs. Lillian Gray, Greenbriar Representative
Mr. Allen Grove, President of Brick Township Education Association
Mr. James H. Napier, President Veterans Memorial Elementary School P.T.A.
Mr. Norman Schue, Board of Education Representative
Mr. Allen Semmler, Chamber of Commerce Representative
Mr. Frederick J. Underwood, Project Director

Their assignment was to monitor the progress of the plan as it developed and make the final recommendations for the project to the Board of Education.

LIMITING FACTORS DURING THE STUDY

The degree of success of the study will be discussed in other areas of this report. It is enough to say here that a much greater degree of achievement could have been accomplished if it were not for the following problems.

The Board of Education did not give its official approval to start the project until the latter part of January, 1975. The late start did not appear to be a problem, even though the time chart in the application for funding required a complete year. All of the actual work which was required to complete the project was completed as this report will show.

Ancillary effects, however, did appear which were related to the delayed starting time. The public information phase of the project was kicked off eight days before the Board of Education election. It was physically impossible to educate the public in eight days. The result was a proliferation of misinformation and the

development of emotional trauma in a segment of the community. This made it a difficult time to carry out the project.

Another problem which limited the success of the project was directly related to the late start of the project. By the time the volunteers were solicited and assigned to a quarter, it was too late to adjust their family schedules to coincide with the vacation pattern of the 45/15 student. This was definitely a contributing factor to the low number of volunteers.

Still another problem which contributed to the lack of interest on the part of the public came into being. It was announced that it was unlikely that we would have Extended School Year. It was also brought to light that there was no line item in the budget allowing air-conditioning. With this information, attendance at the public information meetings dropped off dramatically.

A final problem of the project came on Professional Day, March 14, 1975, when it was stated on television that it was very unlikely that we would have Extended School

Year in Brick Township this year. From that point on, no more teachers volunteered for the project, leaving us with a few vacancies.

CHAPTER II

PUBLIC INFORMATION PHASE

PLAN OF ATTACK

The first phase of the Public Relations Program was the preparation of an agenda of meetings with the parents of the children who attended Lanes Mill Elementary School and Veterans Memorial Elementary School. The purpose of these meetings was to introduce the Extended School Year to the public.

The agenda resulted in three groups of meetings with the parents. Each meeting in the series of three had a different theme. The first meeting was to introduce the Extended School Year program to the parents and to entertain general questions.

The second was to explain the calendar and the educational benefits of the program to the community.

The last meeting concerned the financial benefits to the township and the taxpayer.

A copy of the last revision of the meeting schedule is presented as illustration 2.1 on page 10.

BRICK TOWNSHIP PUBLIC SCHOOLS
BRICK TOWN, NEW JERSEY

DIVISION OF CURRICULUM AND INSTRUCTION

TO: Pupils, Citizens, Teachers, Administrators, Board Members

FROM: Frederick J. Underwood, Project Director

DATE: March 24, 1975

APPROVED BY: C. Stephen Paciti, Superintendent of Schools

It has become necessary to change the location and dates of some of the Public Information Meetings on the Extended School Year Project, during the month of April. Please be advised that this new schedule supersedes any previous schedule.

I GENERAL OVERVIEW OF ESY: BACKGROUND IN BRICK TOWNSHIP

Monday	Mar.	3	7:30 PM	V.M.E.	Kind. Parents	V.M.E.	Auditorium
Wednesday	"	5	" "	"	First Grade"	"	"
Monday	"	10	" "	"	Second " "	"	"
Wednesday	"	12	" "	"	Third " "	"	"
Monday	"	17	" "	"	Fourth " "	"	"
Wednesday	"	19	" "	L.M.	Kind. Parents	"	"
Saturday	"	22	2:00 PM	"	First Grade"	High School	Auditorium
Monday	"	24	7:30 "	"	Second " "	V.M.E.	Auditorium
Wednesday	"	26	" "	"	Third " "	"	"
Wednesday	Apr.	2	" "	"	Fourth " "	"	"

II WHAT IMPACT WOULD ESY HAVE UPON BRICK, RELEVANT TO PUPILS, PARENTS, BUSINESS, VACATIONS, CURRICULUM?

Monday	Apr.	7	7:30 PM	V.M.E.	Kind. Parents	V.M.E.	Auditorium
				"	First Grade"	"	"
Wednesday	"	9	" "	"	Second " "	Kiva, V.M.	Middle
				"	Third " "	"	"
Monday	"	14	" "	"	Fourth " "	V.M.E.	Auditorium
				L.M.	Kind. Parents	"	"
Tuesday	"	15	" "	"	First Grade"	"	"
				"	Second " "	"	"
Wednesday	"	16	" "	"	Third " "	"	"
				"	Fourth " "	"	"

III FISCAL IMPLICATIONS OF ESY ON THE BOARD OF EDUCATION BUDGET

Monday	Apr.	21	7:30 PM	V.M.E.	Kind. Parents	V.M.E.	Auditorium
				"	First Grade"	"	"
Tuesday	"	22	" "	"	Second " "	"	"
				"	Third " "	"	"
				"	Fourth " "	"	"
Wednesday	"	23	" "	L.M.	Kind. Parents	"	"
				"	First Grade"	"	"
Thursday	"	24	" "	"	Second " "	"	"
				"	Third " "	"	"
				"	Fourth " "	"	"

Illustration 2.1
Last Revised Schedule of Meetings

After researching many sources on the Extended School Year Project supplied by Mr. Underwood, the Project Director, three brochures were prepared.

The first brochure explained the Extended School Year and answered the most often asked questions about the program. It also pointed out the advantages and the disadvantages of such a project. Some ideas for this brochure were taken from information developed in the Delran School District.[1] The brochure is contained in this report as illustration 2.2 on page 12.

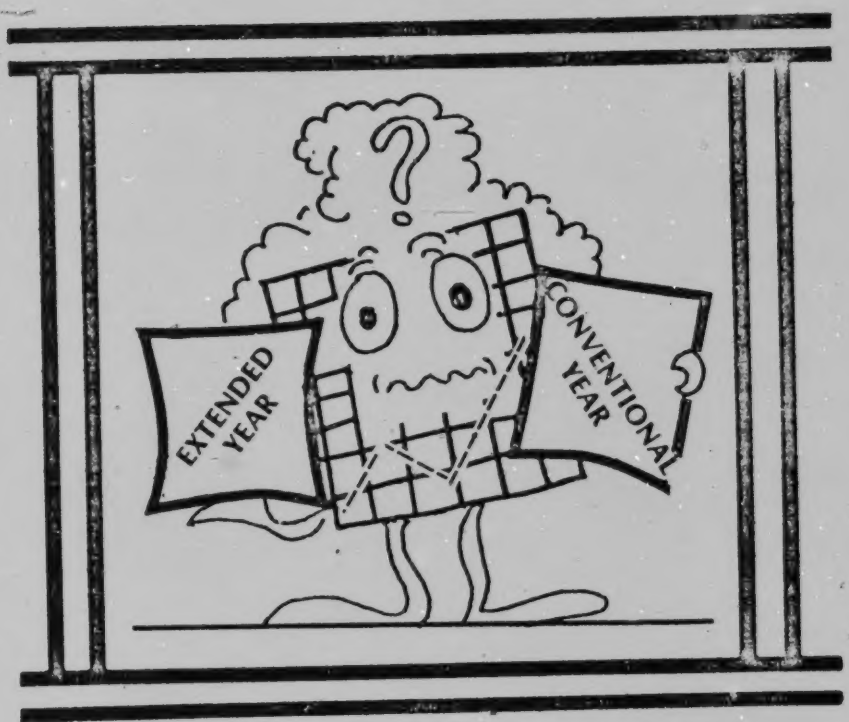
The second brochure concentrated on the school calendar. It also pointed out the advantages of using facilities on a year-round basis, and the ability to accommodate one-third more students without new construction. Information for this brochure came in part from the Feasibility Study[2] while the calendar was supplied by Mr. John J. Boyle, the Organizational Planner. This brochure is illustration 2.3 on page 13.

---

[1] "Educational Needs and Solutions in Delran" (Delran, New Jersey: 1973), p. 2

[2] Extended School Year Feasibility Study (Brick Township, New Jersey: 1974), p. 29.

EXTENDED SCHOOL YEAR PROJECT



BRICK TOWNSHIP PUBLIC SCHOOLS
BRICK TOWN, N.J.

Illustration 2.2
Brochure used at First Meeting

What is E S Y?

The Extended School Year, or year-round utilization of facilities, is one of the plans currently being considered as a means of meeting increasing educational needs throughout the country. The plan has several definite merits. Basically, there are two reasons why the Extended School Year should be examined.

1. Improved Education—When compared to split sessions, there is increased class time. When classes are not over-crowded, there can be more individual attention. There is less learning loss from extended vacations and, therefore, less time is spent in review. All this adds to the quality of education. Through flexible scheduling, E S Y has been shown to aid students of all types. Slow learners as well as fast learners can move at their own pace more effectively with this type of scheduling.

2. Economics—Citizens deserve the wisest use of school monies. Even when compared with the most careful planning in a traditional calendar, savings can, in many cases, be realized by fully utilizing existing buildings with the E S Y calendar. E S Y can provide additional classroom space without additional construction.

Where is Brick in reference to E S Y?

After completing a Feasibility Study last year, it was determined that E.S.Y. could function in Brick. A plan for implementation is presently being developed for a pilot project. Your Board of Education is considering this plan as it develops. **They are deeply concerned about the education of your children and will make a determination as to future directions when the plan is finalized.**

E S Y: Questions and Answers

Q. What does "Extended School Year" Mean?
A. ESY is any plan for modifying the school calendar from the present 9 month school-3 month vacation arrangement. ESY would extend the school year and utilize school facilities year-round. Students will still attend school 180 days per year.

Q. What circumstances warrant ESY?
A. Educational improvement is our foremost concern. Over-crowded schools can be a detriment to education. ESY can help alleviate some of our crowded conditions both now and in the future.

Q. How does 45-15 work?
A. All pupils are divided into four groups. Each group attends school for 45 days [9 weeks] and then has a 15 day [3 weeks] vacation. The attendance schedules for the groups are spaced 15 class days apart so that only three of the four groups are in school at the same time. Under this plan, three school buildings can house the same number of students that four buildings can house in a traditional school calendar.

Q. Do I have a choice about participating in this pilot project?
A. Yes. This is a voluntary program. Participants will be solicited from present school populations in Lanes Mill School and Veterans Memorial Elementary School.

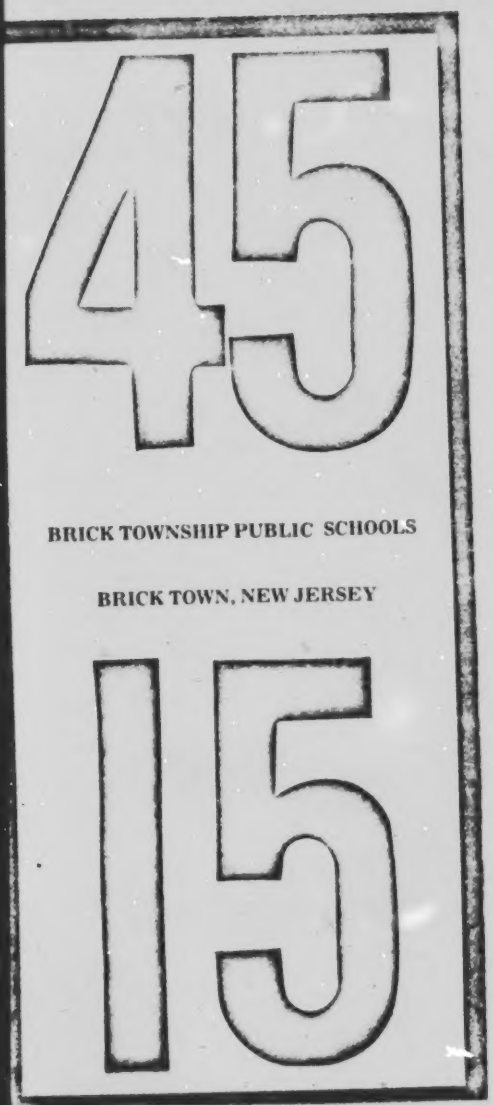
Q. How are the groups divided?
A. Generally, the division is done geographically. All children in the same family are on the same schedule.

ADVANTAGES

1. Better use of buildings, materials, and staff.
2. Reduction in the rate of increase of educational costs.
3. A means of achieving smaller class sizes and full sessions.
4. Continuity of learning and better retention.
5. Flexible scheduling allows for additional advanced and remedial assistance.

DISADVANTAGES

1. Traditional summer vacation is shortened.
2. Initial adjustment difficulties on the part of both student and community at large.
3. Increased administrative problems, especially in scheduling.
4. Difficulty in scheduling teacher time off for furthering their education.



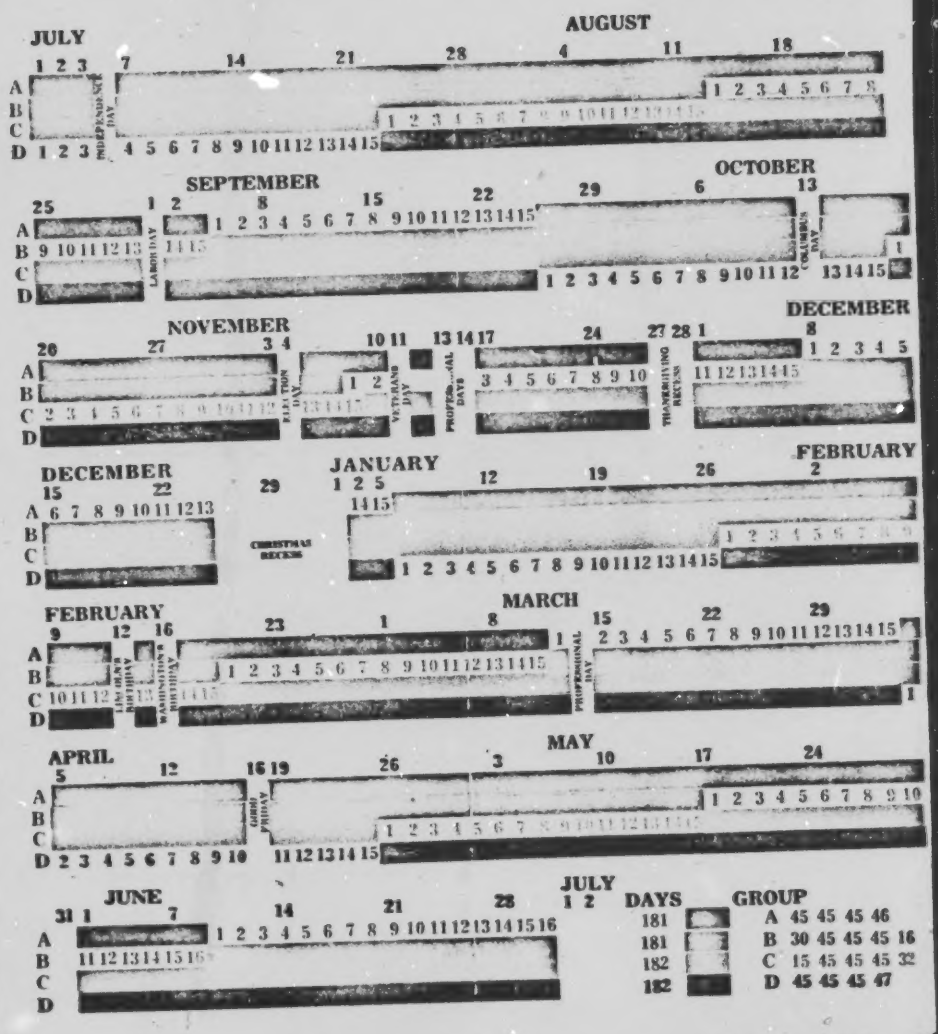


Illustration 2.3
Brochure used at Second Meeting

WHAT IS 45/15?

"45/15" is a term used to describe a cycle of school attendance in which students are in class for 45 school days and then on vacation for 15 school days. The cycles continue year-round with four cycles equaling a normal school year.

Under the "45/15" Plan, schools are divided into four attendance groups. Once the cycle is in full operation, three groups will attend classes at one time while the fourth is on a 15 day vacation.

Elementary children are "lock-stepped" with their teacher. This means that they have the same teacher for an entire year.

By dividing into four groups, and staggering the attendance pattern, the school can accommodate 25 per cent more students in the same amount of space. The number of school days attended is the same as under Traditional nine month plan. Under the 45-15 plan, Lanes Mill Elementary School could accommodate 852 students as opposed to its present 640 functional pupil capacity.

LANES MILL ELEMENTARY

TRADITIONAL CALENDAR

Can accommodate 640 students at functional capacity.

45/15 CALENDAR

With school divided into four groups of 213 students each, 852 students can be accommodated since 639 attend classes while 213 are on a 15-day vacation.

Lanes Mill Elementary School now has 740 students and could conceivably have more next year.

SCHOOL ATTENDANCE

TRADITIONAL SCHOOL—180 days
45/15 SCHOOL—180 days.

SCHOOL HOLIDAYS

Traditional holiday breaks will be observed in all schools.

Each student will have a vacation in each of the four seasons of the year.

All students will have at least four weeks off during the summer season.

Having vacations in four different seasons, a child could take advantage of a variety of sports and other recreational activities. The child will not be limited to only summer activities.

Geographic assignment of students insures that all children from the same family attending a 45/15 school will attend classes on the same cycle and will be on vacation on the same cycle.

Children of the same family attending a 45/15 school will be on the same attendance and vacation cycles.

The third brochure concentrated on the most efficient use of taxpayers monies under the Extended School Year Plan. This brochure included a chart of the projected per pupil cost benefits at the Lanes Mill School. The chart was developed for Brick Township by the New Jersey State Department of Education.[3] This last brochure can be found as illustration 2.4 on page 15.

TOPICS COVERED WITH COMMUNITY

The first in the series of three meetings was held ten times between March 3, 1975 and April 2, 1975. Mr. Underwood conducted all of them except a meeting which was held on March 10, 1975. Mr. Napier conducted that meeting since Mr. Underwood had to attend another meeting, also about Extended School Year.

The agenda for the first meeting started with an introduction followed by a brief history of the development of Extended School Year within Brick Township. A film entitled "Y.R.S. Truly"[4] was then shown. This

---

[3] Dr. William A. Volk, An Analysis of Differences in Costs among Three School Schedules for Lanes Mill Elementary School (New Jersey Department of Education, Office of Program Development), p. 6.

[4] "Y.R.S", (North American Van Lines, Ft. Wayne, Indiana:).

EXTENDED SCHOOL YEAR

Brick Township Public Schools
Brick Town, New Jersey

Illustration 2.4
Brochure used at Third Meeting

Is There A Cost Benefit Under The 45-15 Plan?

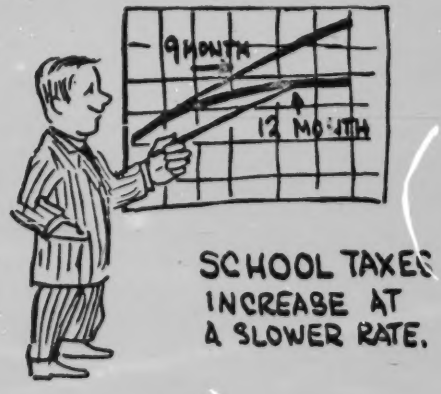
On the 45-15 program, the schools and their facilities are used more efficiently. Classroom space is automatically increased by 33 per cent without new construction. Fewer desks, textbooks, and audio-visual items will be needed to be purchased to serve an increased number of students.

The Extended School Year concept includes the possibility of slowing down the rate of tax increases. Additional tax dollars can be saved by reducing the number of new buildings needed. Buses and classrooms are scheduled on a year-round basis and are, therefore, used more economically.

Citizens deserve the wisest use of school monies. Compared with the most careful planning in a conventional schedule, savings can be realized by fully utilizing existing buildings. The 45-15 Plan can provide additional classroom space without additional construction.

Where Is Brick In Reference To ESY?

The Board of Education will review the ESY committee's recommendations early in the month of May. They are deeply concerned about the education of your children and will make a determination as to future directions when the Plan is finalized.



The Extended School Year Is Working Across The Country!

Of course, the Extended School Year is not perfect, and not everyone is happy with it. However, it is working in many school districts throughout the country with favorable results.

Independent surveys from districts with ESY programs say that dollar savings are substantial, teachers like the year-round employment, and students are learning as well as if not better and covering more material.

Surveys show other favorable results; such as more student enthusiasm, improved educational opportunities, and curriculum enrichment. The Plan does not deny students the opportunity to participate in extra-curricular activities.

There is no easy or popular solution to the problem of increasing enrollment. Please help us make the best choice.

PER PUPIL COST COMPARISON

	Hypothetical 640/185		Actual 668/185		Projected 850/240		Benefit ESY
BUDGET BREAKDOWN CURRENT EXPENSES	Cost	Per Pupil	Cost	Per Pupil	Cost	Per. Pupil	Per Pupil Cost Diff. Actual/Proj.
Item A Administration	$ 27,342	$ 42.72	$ 27,342	$ 40.93	$ 27,342	$ 32.17	$ 8.76
Item B Secretarial	6,301	9.85	6,301	9.43	9,951	11.71	–2.31
Item C Classroom Teachers	303,600	474.38	317,400	475.15	403,877	475.15	0.00
Item D Support Staff	80,839	126.31	80,839	121.02	102,647	120.74	0.28
Item E General Services	36,586	57.17	36,586	54.77	48,939	57.57	–2.80
Item F Fringe Benefits	50,685	79.20	52,331	78.30	65,105	76.60	1.73
Item G Instructional Supplies	15,680	24.50	16,366	24.50	17,255	20.30	4.20
Item H Maintenance	15,961	24.94	15,961	23.69	15,961	18.78	4.91
Item I Custodial Supplies	2,362	3.69	2,462	3.69	3,137	3.69	0.00
Item J Utilities	10,868	16.98	10,901	16.32	11,958	14.06	2.26
Item K Transportation	36,608	57.20	38,210	57.20	52,523	61.33	–4.13
TOTALS	$586,832	$916.94	$604,699	$905.00	$758,695	$892.10	$12.90

film shows how 45/15 is working in other parts of the country.

After the film, Mr. Underwood explained scheduling cycles and vacations under a 45/15 calendar. He also explained what implications the implementation of the experiment would have in the affected area of the community. Topics he touched on were pupil capacity, who is involved, curriculum, why Lanes Mill School, educational and financial values. The meeting closed with a question and answer period. During this time a survey was distributed. The results of this survey are discussed in the chapter entitled Surveying Phase. A copy of the agenda he used is shown as illustration 2.5 on page 17.

The second in a series of three meetings was held five times between April 7, 1975 through April 21, 1975. This meeting as well as the third meeting was originally scheduled many more times. The schedule was revised, however, when attendance declined dramatically. This was attributed to an announcement that the implementation of 45/15 was unlikely for the 1975-76 school year. This is evidenced by the fact that we had

AGENDA

FOR ALL FIRST MEETINGS

I Introduction

II History of ESY in Brick Township

III Film

IV What is 45/15

- A. Cycles
- B. Schedules
- C. Vacations

V What does it mean in Brick (Lanes Mill School)

- A. Pupil capacity
- B. Two sending areas
- C. Curriculum
- D. Why Lanes Mill School
  1. Overcrowding
  2. Younger familes
  3. Air-conditioning

VI Educational Values

- A. Boredom
- B. Re-teaching time

VII Financial Values

A. Building vs. Air-conditioning
Toms River

5,500,000	1500 =	$3,666.67
4,000,000	1500 =	2,666.67
100,000	213	469.48

B. Buses (20 to 15)

VIII When do we start?

IX Questions

Illustration 2.5
Agenda for Second Public Information Meeting

a combined total of 109 people at the third meetings. Of those 109 people, only 74 people attended all three meetings.

Mr. Underwood again conducted these meetings; this time with the assistance of Mr. McGuire and Mr. Napier. After Mr. Underwood welcomed the people and reviewed the results of the first meeting, he explained the brochure with an emphasis on the calendar.

Mr. McGuire then presented the findings of the survey conducted at the first meeting. Mr. Napier followed this with an explanation of curriculum planning, SMILE, and pre-/post-testing.

Mr. Napier distributed four sample pages from the SMILE Packets. These pages are presented as illustrations 2.6, 2.7, 2.8 and 2.9 found on pages 19, 20, 21 and 22.

After a question and answer period, the meeting was closed. A copy of the agenda used in the second meeting is shown as illustration 2.10 on page 23.

GAME ONE

Purpose: To provide experience in classification by color.

Materials: The eight squares from the set of colored cards.

Spread the squares out in no particular order but with all of them plainly visible. Single out a red one.

"What color is this?"

"Can you point to another red one?"

"Put the two red ones together."

Repeat with each of the other colors. Then mix them all up again.

"Can you put the ones together that are alike?"

Comments: Children use color, shape, and size in classifying things around them. Color is the easiest of these three attributes, and the best place to start. Colors with decided and striking differences come first--subtle gradations of shade and hue should not be used until later.

GAME TWO

Purpose: To provide experience in classification by color.

Materials: The whole set of eighteen colored cards. A small piece each of the same red, blue and yellow plastic tape or adhesive tape crayoned red, blue, yellow.

Spread out all the cards on one side of a fairly large working surface, such as a table or the floor. Stick a small cross of red tape on the other side.

"Can you find all the red cards and put them over here?"

When your child has successfully done that, repeat with blue and then with yellow (identifying each sorting place with a cross of the appropriate color), leaving each group in place.

"What color are all these cards that are left over?"
Point out that he has now sorted the whole set by color.

Illustration 2.6
Sample SMILE Packet Page

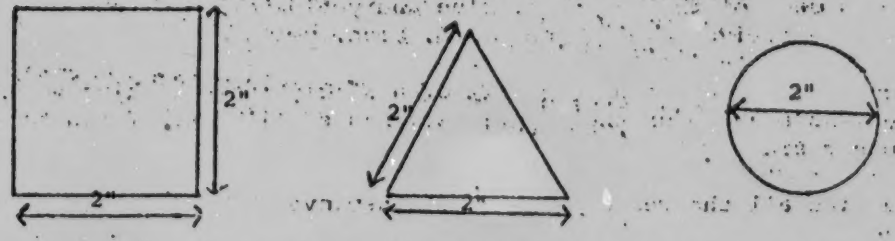
S M I L E SAMPLE - EARLY PRIMARY

SPECIAL INSTRUCTIONS TO PARENTS

COLORED CARDS FOR SMILE GAMES

Colored cards are used in over a dozen classification and seriation games in various SMILE packets. These cards can be made from construction paper, colored cardboard, or any other suitable material. You will need eight squares that are two inches on each side. Make two each that are red, green, blue and yellow. You will also need five triangles two inches on each side - two red, one blue, one yellow, and one green. Finally, you need five circles that are two inches in diameter - two red, one blue, one yellow, and one green.

That's it. You are ready to go. Peace and success to you and your child.



Make:	Make:	Make:
2 Red	2 Red	2 Red
2 Green	1 Blue	1 Blue
2 Blue	1 Green	1 Green
2 Yellow	1 Yellow	1 Yellow

Illustration 2.7
Sample SMILE Packet Page

S M I L E SAMPLE - PRIMARY

HIDDEN WORDS: (You will need a pencil and crayons to complete this activity.)
How To Play: There are some long /e/ words (words with the same sound as the /e/ sound in /feet/) hidden in this puzzle. Some of the words go across and some go down. Ask your child to see how many words he can find and write in the blanks. Have him use a crayon to lightly color the letter boxes which make a word. When he is finished locating the words have him read them to you. (List ONLY the words with the long /e/ sound.) There is a possibility of 15 words in the rows across and 21 in the rows down. Some rows have as many as 5 words and other rows have none. (You may want to help him find the first words in the first row across: /b/e/e/ makes 2 words--/be/ and /bee/).

c	o	d	l	e	r	t	o	r	b	e	e
m	e	x	p	d	c	o	c	h	e	e	k
e	a	t	o	a	f	e	e	f	o	t	u
a	t	e	n	t	l	e	r	n	y	r	q
t	e	a	u	b	e	f	b	s	e	e	d
b	d	c	h	e	e	s	e	n	s	e	r
p	l	h	e	a	t	o	a	i	x	z	g
l	s	e	a	m	p	h	s	t	e	a	m
e	h	l	t	r	e	a	t	e	r	n	e
a	e	u	z	a	o	m	o	a	y	k	a
s	n	f	o	g	r	e	a	s	e	l	n
e	p	h	p	o	t	h	r	e	e	v	a

Across Words

Down Words

Illustration 2.8
Sample SMILE Packet Page
36

Illustration 2.9
Sample SMILE Packet Page

AGENDA

I Welcome:

A. Third and last in a Series of Three Meetings.
B. Topic is Financial Implications.
C. Announce arrival of Survey in mail.

II Overview of First Meeting:

A. Voluntary Program.
B. Educational and economic advantages.

III Overview of Second Meeting:

A. Explanation of Calendar.
B. Explanation of Survey taken.
C. Explanation of curriculum, SMILE Packets and pre-/post-testing.

IV Why look at 45/15 from a financial viewpoint:

A. Pupil enrollment projections. (page 1)
B. Potential savings information from Feasibility Study, page 2
C. Construction costs of three buildings from Feasibility Study, page 121.
D. Slide presentation.

V Lanes Mill Experiment:

A. Per Pupil Cost Comparison (brochure)
B. Capital Expense Comparisons. (pages 3-4)
C. Heat vs. Air-conditioning.

VI Questions and Answers.

Illustration 2.10
Agenda for Second Public Information Meeting

The third and last meeting was given four times between April 21, 1975 and April 24, 1975. Mr. Underwood conducted these meetings by himself.

After a welcome and an overview of the first and second meetings, he attempted to explain why Brick Township is even considering Extended School Year. Pupil Enrollment Projections[5] and Per Pupil Cost Projections[6] were distributed and explained. These distributions are contained herein as illustrations 2.11 and 2.12 on pages 25 and 26.

Mr. Underwood went on to tell how Brick Township could save in excess of Twenty-five million dollars in building costs if Extended School Year were implemented district-wide. This was followed by a slide presentation showing Brick Township's continued growth.

The financial implications of the Lanes Mill experiment were then discussed. The Per Pupil Cost

---

[5] Compiled by Frederick J. Underwood, based on Brick Township Building Referendum Statistics.

[6] Feasibility Study, p. 122

SCHOOL PLANT PUPIL CAPACITIES

Functional Capacity	Emergency Capacity	Pupil Population as of March 31, 1975
2,155	2,536	2,929....High School
6,428	7,093	7,413....K-8
8,583	9,629	10,342

HIGH SCHOOL

Functional Capacity	Emergency Capacity	
2,155	2,536	.....Traditional Calendar
+388	+456	.....18% Increase under 45/15
2,543	2,992	.....45/15 Calendar
-2,929	-2,929	.....H.S.Population as of 4/31/75
(386)	63	.....Excess Capacity

KINDERGARTEN THROUGH 8TH GRADE

Functional Capacity	Emergency Capacity	
6,428	7,083	.....Traditional Calendar
1,607	1,773	.....25% Increase under 45/15
8,035	8,866	.....45/15 Calendar
-7,413	-7,413	.....K-8 Population as of 4/31/75
622	1,453	.....Excess Capacity

KINDERGARTEN THROUGH 12 INCREASED SEATING CAPACITY

Functional Capacity K-12	Emergency Capacity K-12	
10,578	11,858	.....45/15 Calendar
-8,583	-9,629	.....Traditional Calendar
1,995	2,229	.....Increase under 45/15

PUPIL SEATING CAPACITY NEED BY 1978/79

Pupils Enrolled 3/31/75	Functional Capacity 74/75	Present Need 74/75	Projected Enrollment 78/79	Future Need 78/79	
2,929	2,155	774	3,727	1,572	9-12
2,461	1,949	512	2,897	948	6-8
4,952	4,479	473	5,598	1,119	.....K-5
10,342	8,583	1,759	12,709	3,639	

Illustration 2.11
Pupil Enrollment Projections

POTENTIAL SAVINGS IN OPERATIONS SECTION OF BUDGET

Account	73/74 Budget	Per Pupil Cost (10,000)	Traditional Calendar with three new buildings 78/79 Budget	Per Pupil Cost (12,700)	45/15 Calendar with one new building 78/79 Budget	Per Pupil Cost (12,700)	Per Pupil Savings
Administration	490,313.00	$ 39.63	$ 503,301.00	$ 39.63	$ 503,301.00	$ 39.63	$ --
Instruction	8,054,272.00	797.45	10,127,615.00	797.45	10,082,615.00	793.91	+ 3.54
Attendance	48,194.00	4.77	60,579.00	4.77	60,579.00	4.77	--
Health	176,740.00	17.50	222,250.00	17.50	222,250.00	17.50	--
Transportation	787,485.00	77.97	990,219.00	77.97	924,865.00	72.82	+5.15
Operation	965,411.00	95.59	1,213,993.00	95.59	1,214,993.00	95.67	- .08
Maintenance	315,320.00	31.22	396,494.00	31.22	396,494.00	31.22	--
Fixed Charges	645,800.00	64.04	813,308.00	64.04	652,212.00	51.36	+12.68
Cafeteria	5,000.00	.50	6,350.00	.50	6,350.00	.50	--
Student Activities	111,400.00	11.03	140,081.00	11.03	140,081.00	11.03	--
TOTALS	14,510,935.00	1,139.70	14,474,190.00	1,139.70	14,203,740.00	1,118.41	+21.29

61. Underwood and Campbell, op. cit.

Illustration 2.12
Per Pupil Cost Projections

Comparison which can be found on the back page of the third brochure was reviewed. The Capital Expense Comparison was explained as presented in illustration 2.13 on page 29.

The final piece of information that was disseminated at the meeting came in the form of a transparency. It showed how more units of energy are used to heat a building as compared to air-conditioning a building. This information is presented in illustration 2.14 on page 33. A question and answer period concluded the meeting.

A copy of the agenda used at the third meeting is contained herein as illustration 2.15 on page 34.

In concluding this section of the project, a list of the most commonly asked questions by the parents attending the meetings is presented for your information. They are as follows:

1. Is this program voluntary?
2. With the 45/15 Plan, will we still have to build?

---

[7] Volk, pp. 28-31.

3. Why is the project done on the elementary school level?

4. How many volunteers do you need to begin the pilot program?

5. How much will this program save the taxpayer?

6. What are the children to do during their four 15-day vacations?

7. Does the program require more teachers?

8. When will the project begin?

CAPITAL OUTLAY

Facility Construction

Cost of elementary school to accommodate 640 students:*

Building costs:	$2,913.00	= cost per pupil
	x640	= students
	$1,864.320.00	
Equipment Cost:	$320.00	= cost per pupil
	x640	= students
	$204,800.00	
Total Cost:	$1,864,320.00	
	204,800.00	
	$2,069,120.00	
	2,379,488.00	- est. interest on 30 year bond issue(1.15)
Total:	$4,448,608.00	

Potential Cost Benefit:

Extended School Year accommodates 1/3 (213) more students per building, therefore, the cost benefit in facility construction can be estimated accordingly:

1/3 x $1,864,320 = $621,440.00 on buildings
1/3 x $2,069,120 = $689,707.00 on buildings and equipment
1/3 x $4,448,608 = $1,482,869.00 on building, equipment and interest

An alternative would be to construct additional

*Source: New Jersey State Department of Education, Bureau of Facility Planning Services, the figure represents a school facility of approximately 55,000 sq. ft. at 33.75 cost per sq. ft. Figures do not reflect the cost of a site.

Illustration 2.13
Capital Expense Comparison Brochure

classrooms on the present site. Should that alternative be exercised, the cost of ten or more classrooms at a renovation cost per sq. ft. must be calculated. As a general rule, renovation costs per sq. ft. exceed those of new construction. The $689,707.00 calculated for 1/3 of a guilding and equipment may not be unrealistic as a projection for renovation.

Busses

Because it is possible under the 45/15 Extended School Year calendar to transport 850 students in the same number of busses that is required to transport 640 students a cost benefit can be estimated accordingly:

$12,500.00 = per bus standard equipment*
x5 = number of fewer busses needed
$62,500.00 = est. cost benefit

850 divided by 45 = 19 = number of busses needed** (traditional school year)
650 divided by 45 = 14 = number of busses needed (Extended School Year)
5 = number of fewer busses needed

*Source: New Jersey State Department of Education, Bureau of Pupil Transportation.

**45 is the number of students used to calculate the number of busses needed. Source of figure: Brick Township Schools Office of Transportation.

Illustration 2.13 (continued)

Summary/Capital Outlay
Cost Benefit

Item	Benefit ESY
Building	$ 621,440.00
Equipment	68,267.00
Interest	793,162.00
Busses	62,500.00
	$1,545,369.99

Note: Site acquisitions costs would have to be added to the above figures, i.e., 1/3 of total site and site improvement costs.

Start-up Expenditures

Installation of Air-conditioning	$100,000.00 est.
Replacement of compressor in school cafeteria refrigerator	400.00 est.

A Sample of Current Construction Costs in Brick Township

Statistics on the new municipal building being constructed in Brick Township as of January 17, 1974 are as follows:

Illustration 2.13 (continued)

$ 53,792 sq. ft.	(includes two levels)
2,371,074.00	Cost of Municipal Building
42.20	Cost per sq. ft.
85,000.00	Cost of site (41 acres)
2,073.00	Cost per acre

Illustration 2.13 (continued)

Illustration 2.14
YEAR-ROUND ENERGY CONSUMPTION
HEAT VERSUS AIR-CONDITIONING

Month	Average Kilowatt Hours
July	59,720
August	88,804
September	84,759
October	67,829
November	75,639
December	108,200
January	108,752
February	102,285
March	93,565
April	80,979
May	61,781
June	73,908
Monthly Average	83,851

Monthly averages over 2 1/2 years of four schools in Prince William County using both electric heat and air-conditioning.

AGENDA

I Welcome:

A. Third and last in a Series of Three Meetings.
B. Topic is Financial Implications.
C. Announce arrival of Survey in mail.
D. Old Brochure and Schedule available.

II Overview of First Meeting:

A. Voluntary Program.
B. Educational and economic advantages.

III Overview of Second Meeting:

A. Explanation of Calendar.
B. Explanation of Survey taken.
C. Explanation of curriculum, SMILE Packets and pre-/post-test.

IV Why look at 45/15 from a financial viewpoint:

A. Pupil enrollment projections. (page 1)
B. Potential savings information from Feasibility Study.
C. Construction sosts of three buildings. (page 2)
D. Slide presentation.

V Lanes Mill Experiment:

A. Per pupil cost comparison (brochure)
B. Capital expense comparisons. (pages 3-4)
C. Heat vs. air-conditioning.

VI Questions and Answers.

Illustration 2.15
Agenda for Third Public Information Meeting

CHAPTER III

RESEARCH PHASE

PLAN OF ATTACK

According to the list of objectives that were assigned to the Planning Council members, the task of the Research Planner fell into three major categories. First, evaluate the mood of the community during the development of the plan for implementation; second, determine the number of people willing to participate; and third, develop instruments capable of evaluating the attitudes of that segment of the community which chose to participate. Specifically, there are to be surveys for students and parents as well as teachers.

COMMUNITY ATTITUDE ABOUT ESY DURING THE DEVELOPMENT OF THE PLAN FOR IMPLEMENTATION

In order to determine the initial reaction of ESY, a survey was distributed at the conclusion of the first meetings. This survey is presented with the combined number of responses in all categories as illustration 3.1 on page 36.

Illustration 3.1
BACKGROUND INFORMATION FOR E.S.Y. PROGRAM

1. Will you have children enrolled in Kindergarten in Lanes Mill or Veterans Memorial Elementary School in 1975-76? Yes 85 No 248

2. Will you have children attending the Middle School or High School in 1975-76? Yes 145 No 198

3. How many children do you expect to have enrolled in grades Kindergarten through grade 5 in 1975-76 _____

0	1	2	3	4	5
6	157	126	17	6	1

4. Please rank (1st, 2nd, etc.) in order of preference, in your opinion, the best way to schedule the attendance of children.

		1st	2nd
_____	Large classes	10	25
_____	Split session	32	88
_____	New building	164	74
_____	Extended School Year.	133	72
_____	Other Additions.....	8	

5. What would your opinion be of an E.S.Y. Pilot Project conducted district-wide rather than in a single school. Check off the appropriate response.

55	Strongly favor
48	Mildly favor
16	No difference or do not know
25	Mildly oppose
67	Strongly oppose

ADDITIONAL COMMENTS:

Name_____

This is followed by school and class breakdowns given in percentages of questions 4 and 5. They are listed as illustrations 3.2 through 3.9 on pages 38, 39, 40, 41, 42, 43, 44 and 45.

In looking at the results for question 4, remember that first and second choices are combined; thus, the sum of any graph will total 200% and not 100%.

Question 4 tells us what the 354 parents of children in Lanes Mill and Veterans Memorial Elementary schools, concerned enough to come out to the first meeting, want the Board of Education to do about overcrowded conditions. New buildings is first over ESY which is second choice. Split session is in third place with large classes bringing up the rear. This is graphically presented in illustration 3.9 previously mentioned.

Question 5 attempts to determine whether the people would want ESY to be distri[illegible]-wide rather than just one school. The results as presented in illustration 3.9 on page 45 show that the opinions are about equally divided pro and con. While these results do not show a conclusive answer to question 5, it does suggest that if the Lanes Mill experiment is not enacted, any future ESY programs should encompass a larger segment of the community and cover more grade levels.

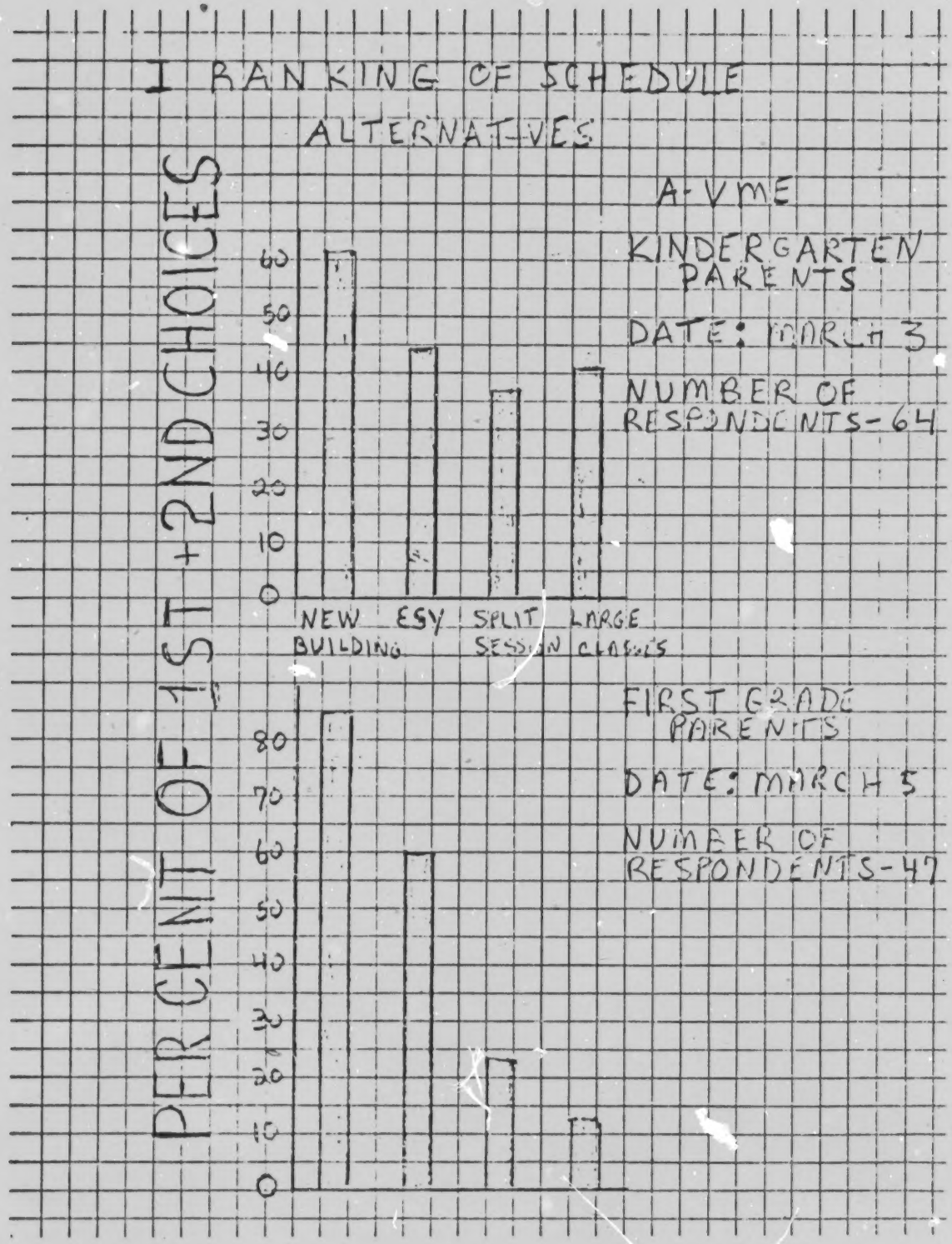


Illustration 3.2
Choices of Kindergarten and First Grade Parents in Veterans Memorial Elementary School

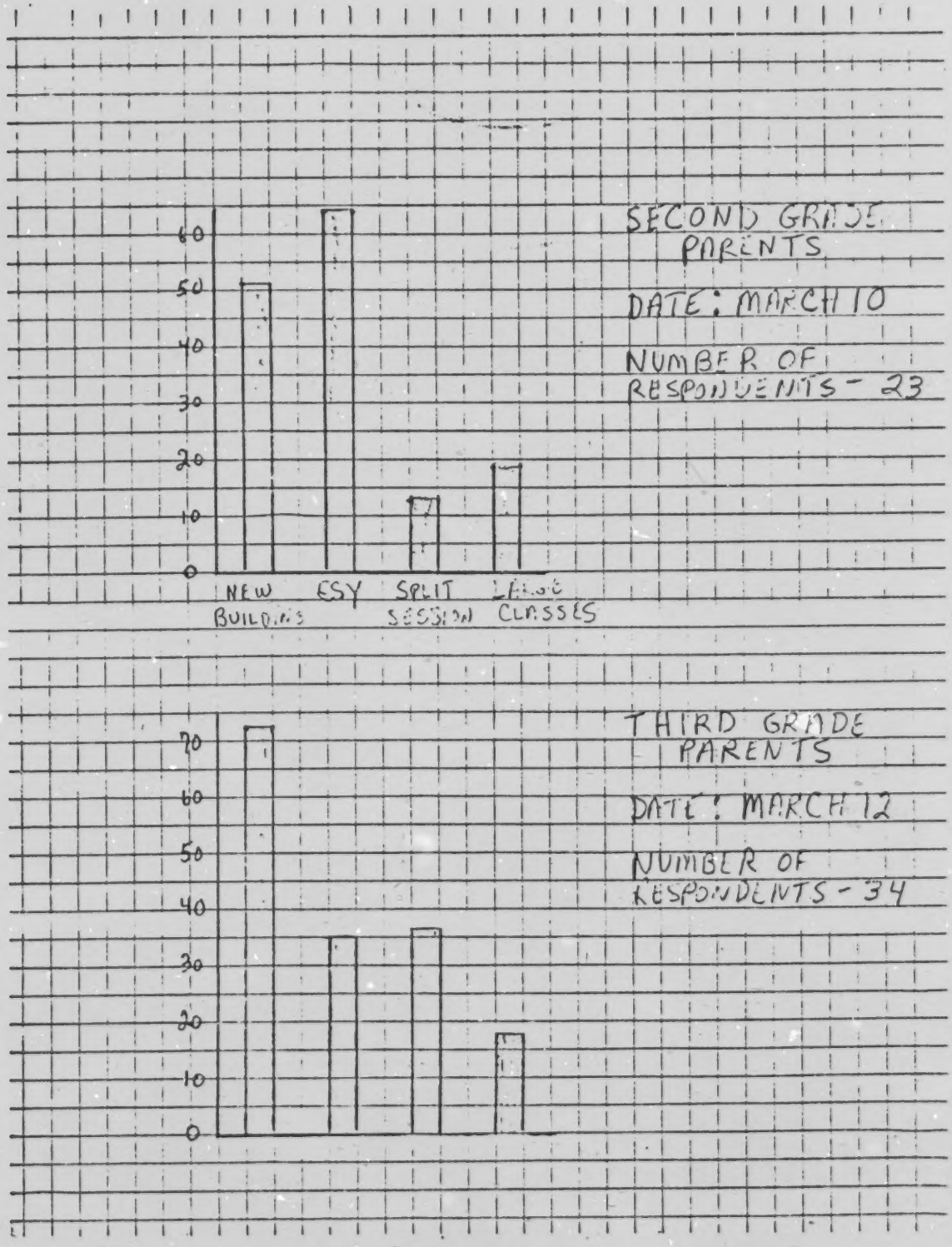


Illustration 3.3
Choices of Second and Third Grade Parents in
Veterans Memorial Elementary School

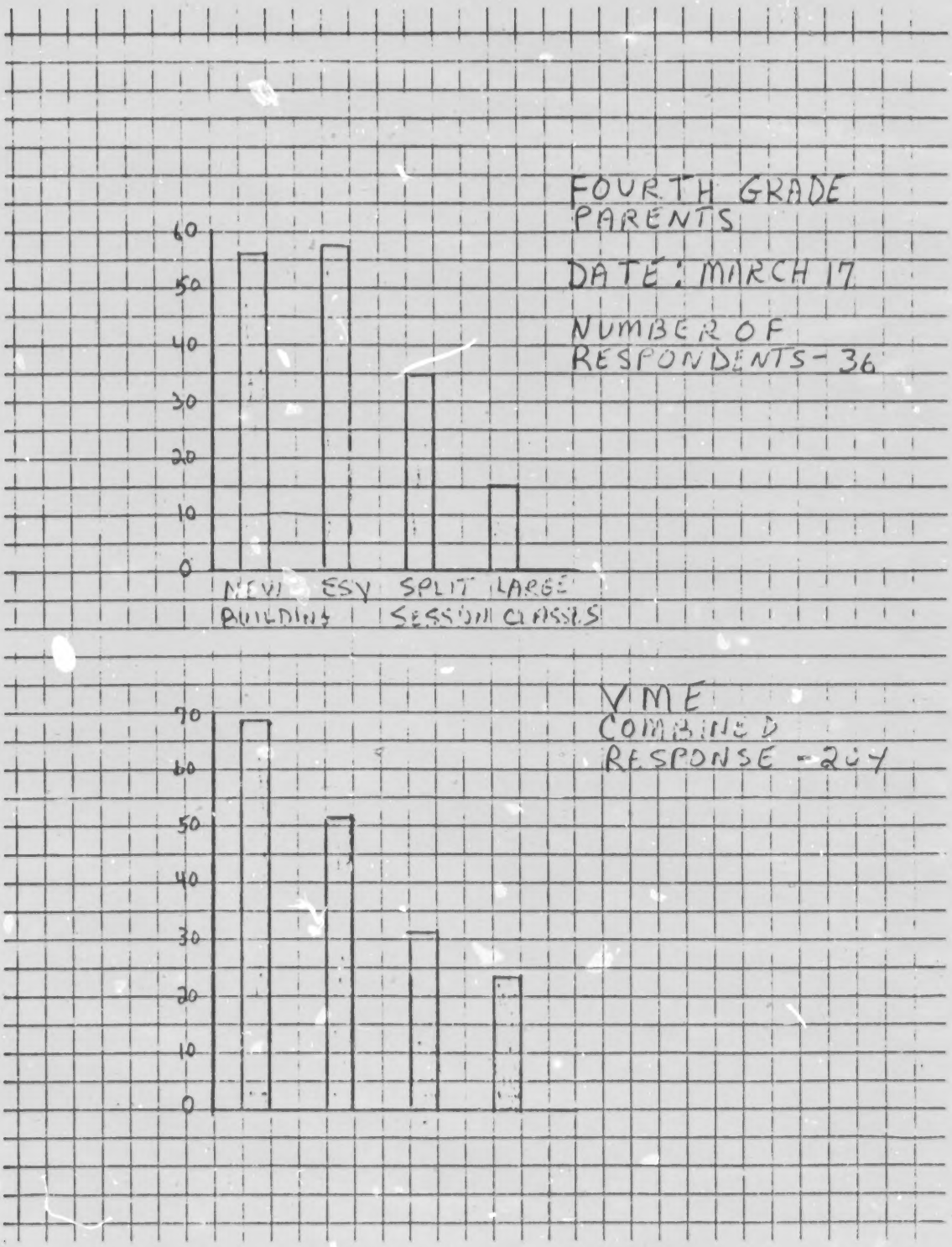


Illustration 3.4
Choices of Fourth Grade Parents and Combined Choices of all Responding Veterans Memorial Parents

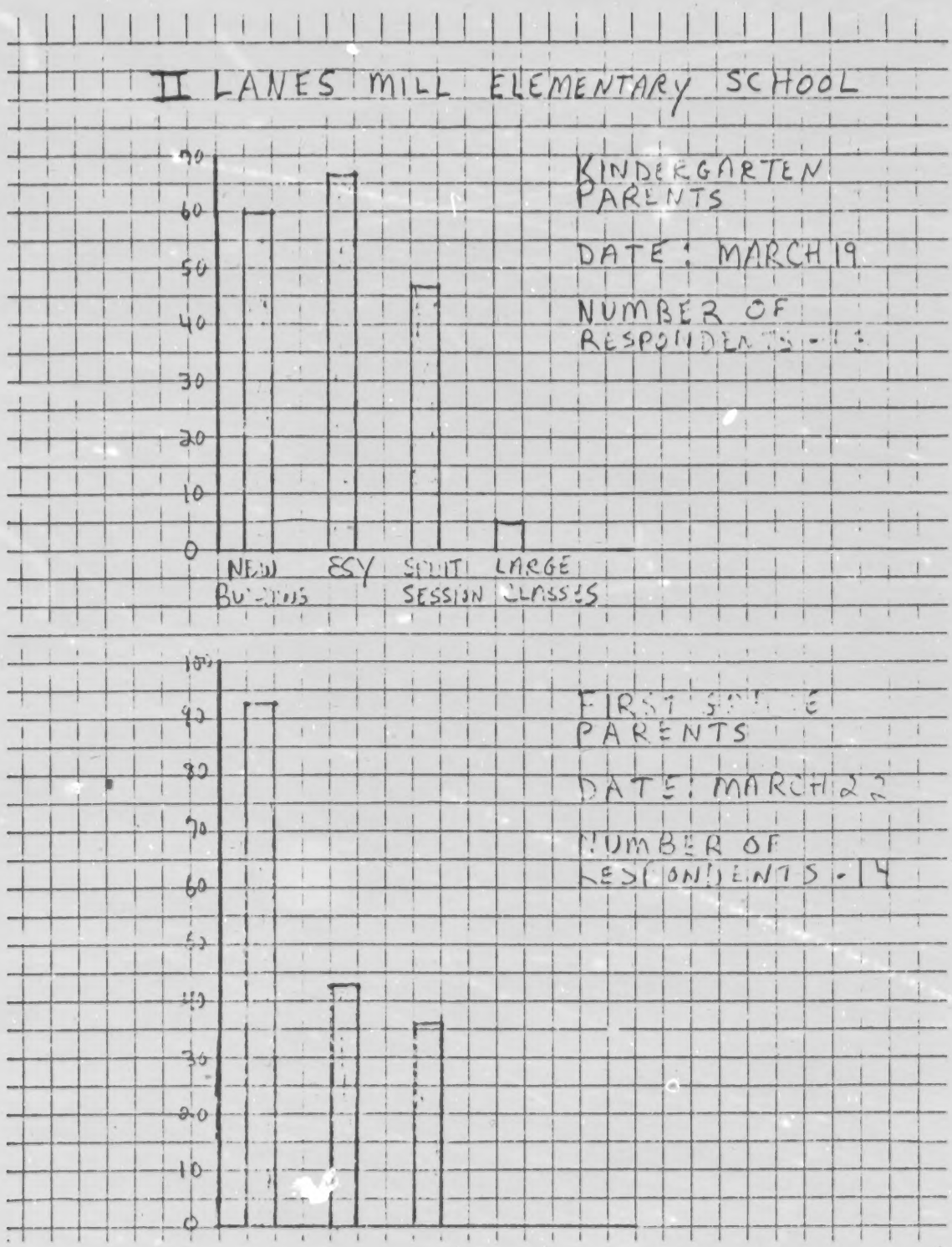


Illustration 3.5
Choices of Kindergarten and First Grade Parents in Lanes Mill School

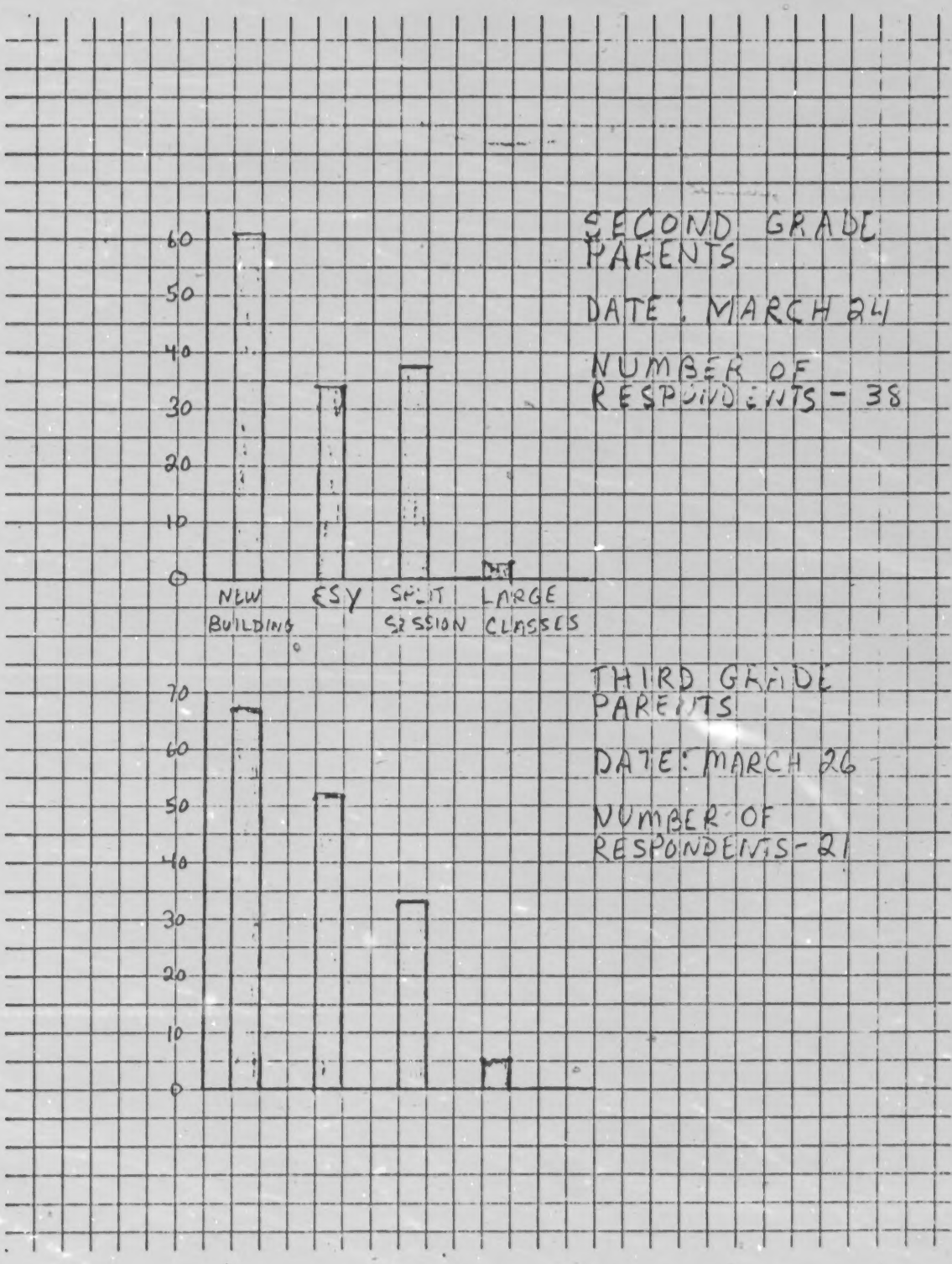


Illustration 3.6
Choices of Second and Third Grade Parents in
Lanes Mill School

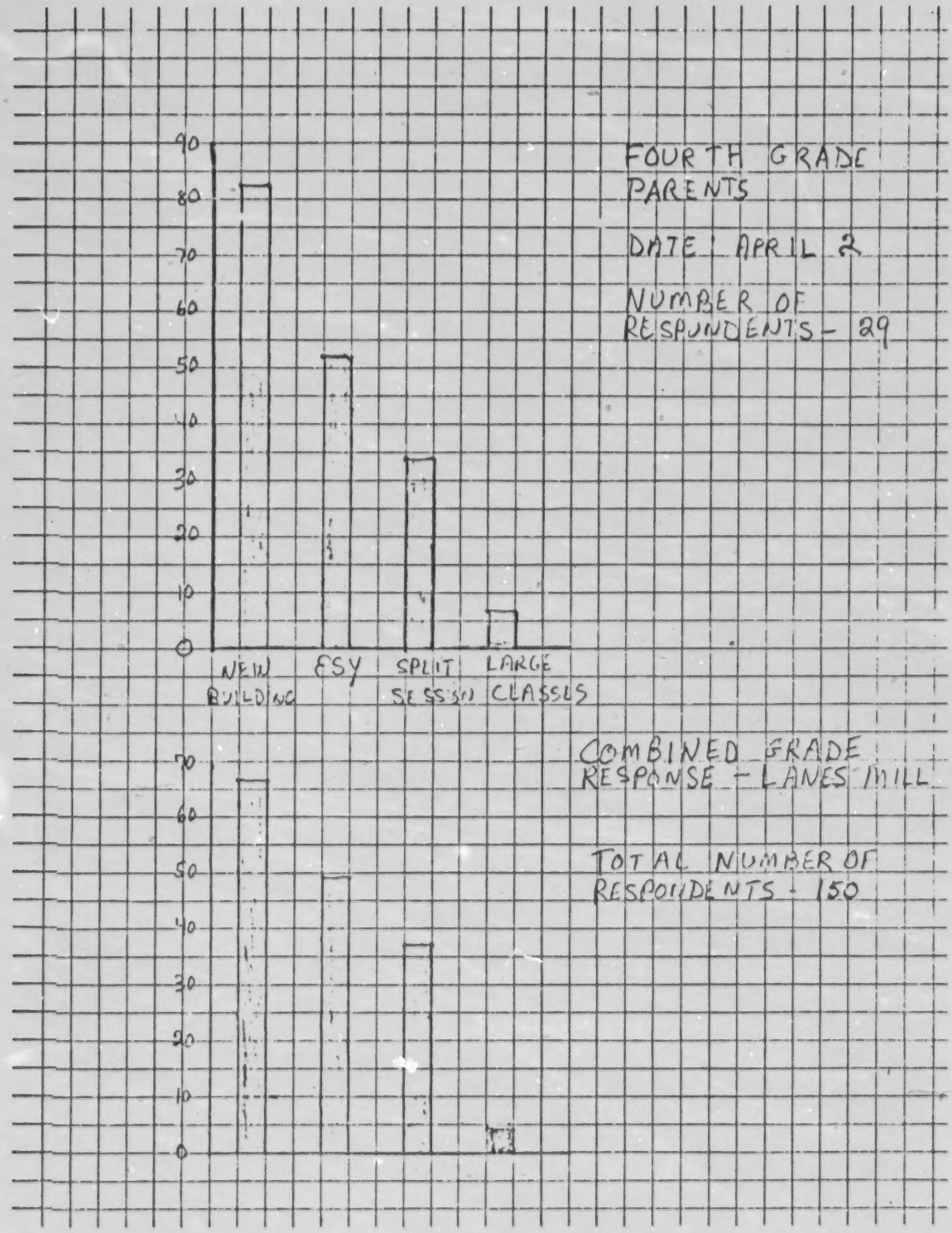


Illustration 3.7
Choices of Fourth Grade Parents and Combined Choices of all Responding Lanes Mill Parents

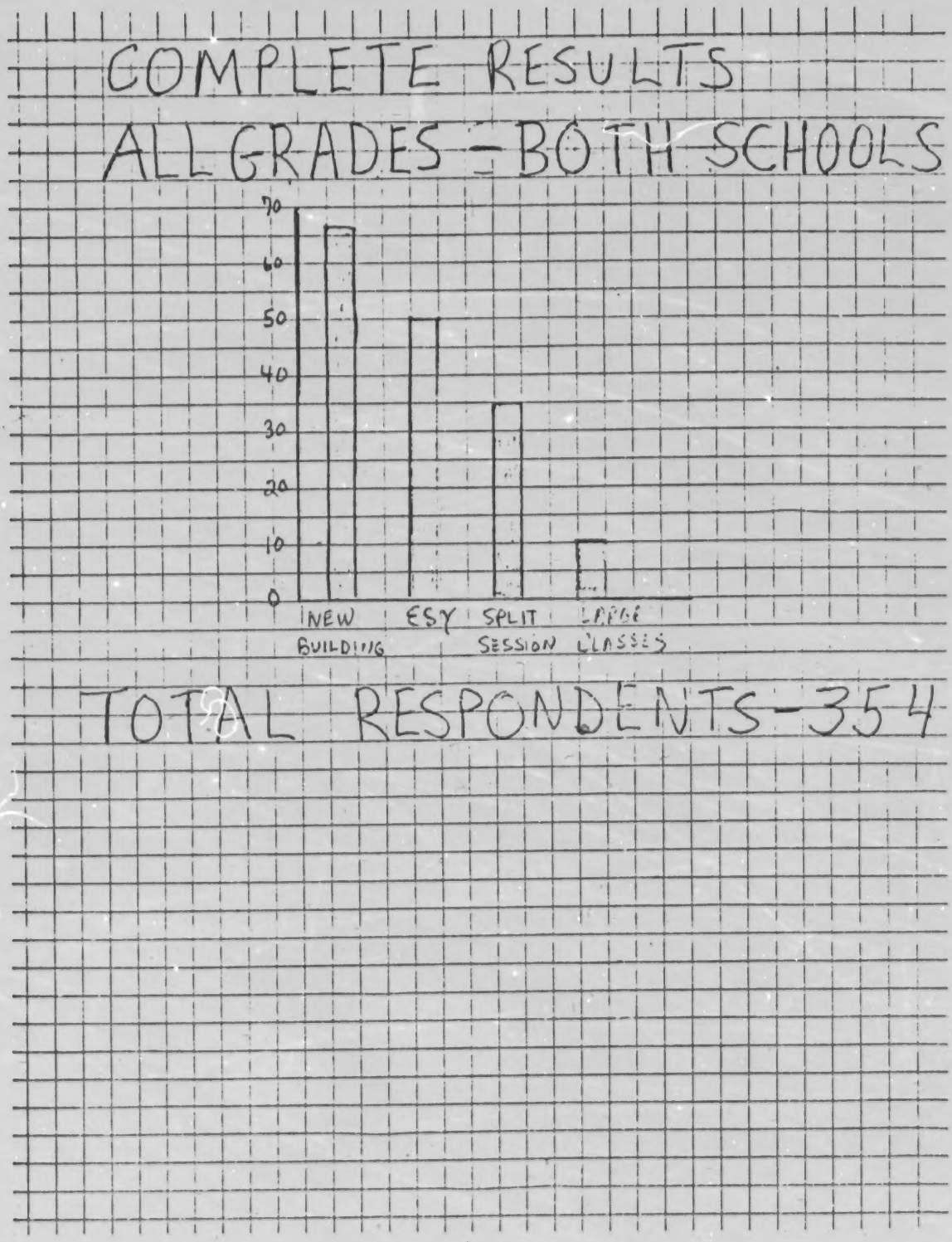


Illustration 3.8
Combined Results of Both Schools

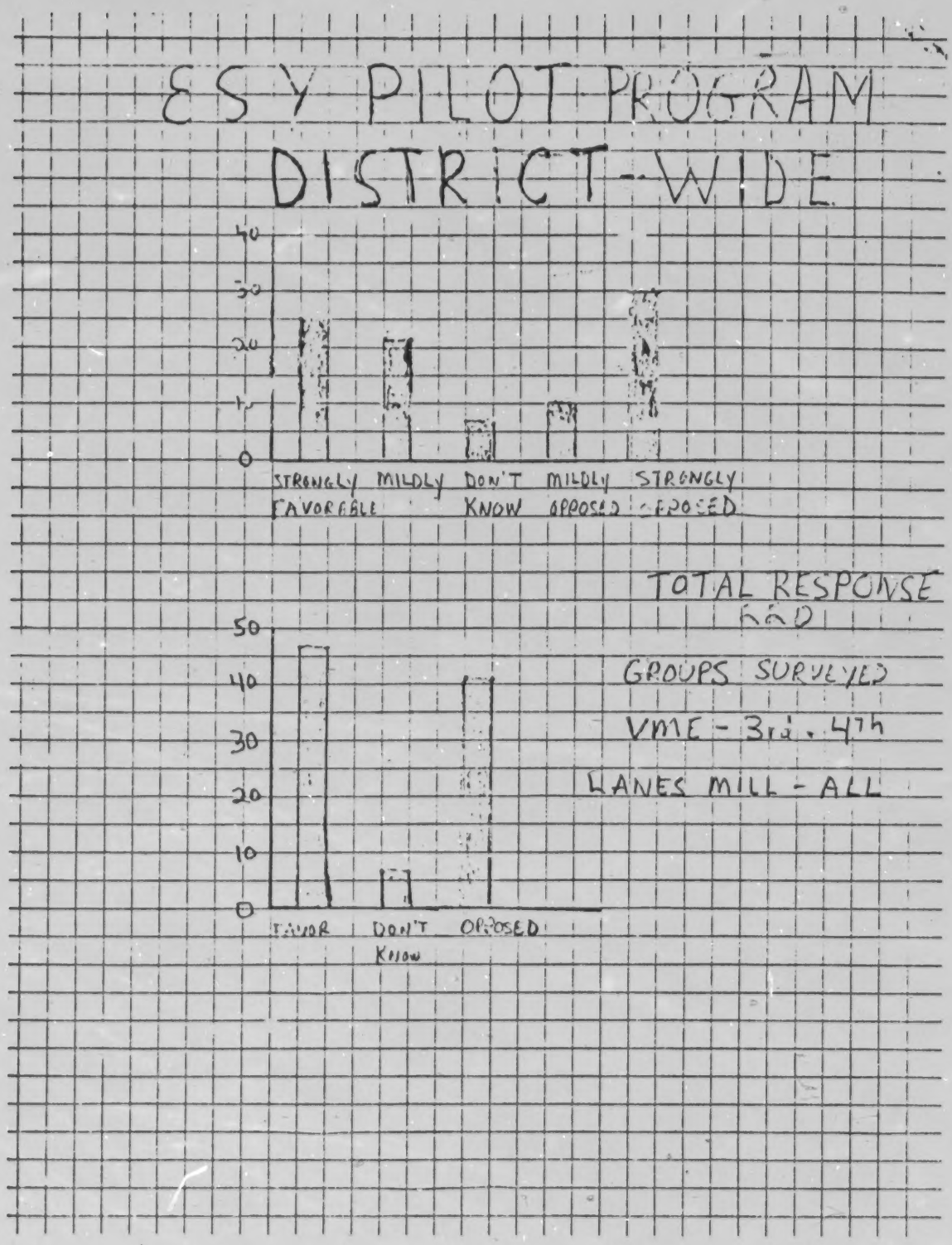


Illustration 3.9
Analysis of all Respondents to Question 5

The second survey was mailed to all parents of children in Veterans Memorial Elementary and Lanes Mill schools, whether they attended the meetings or not.

As of May 7, 1975, there were 517 returns. This represents a 39.8% return of the survey. The answers to two basic questions were sought with this survey. The first question was; how many children would volunteer? The answer was 133. This is far from the desired number of 852. The second question dealt with finding out what the parents' feelings are regarding the studying of the Extended School Year concept and giving it further consideration. Positive responses amounted to 46.0% on this question while 53.2% responded negatively. Only .8% were neutral on the question. These percentages are based on the responses to question 6 of the survey. Considering the poor turnout at the public meetings and, therefore, the lack of knowledge concerning Extended School Year by the parents, we can draw no real conclusions from these statistics except to say that the community is nearly equally divided in their opinions, pro and con, about what we should do in the future with Extended School Year.

An effort was made to correlate the degree of

acceptance of the project with the amount of education the people received on the project. This proved to be futile. However, because the responding parents claimed to have attended many more meetings than our attendance records showed. It is felt, however, that as the degree of education on the Extended School Year increases, so too does the degree of acceptance of the concept. This feeling is based on observations at the meetings and not concrete data from the survey.

Another point to consider at this time, if Extended School Year should be given further consideration, is that, besides public meetings, small informal get-togethers (coffee klatches) should be held. Implementation of Extended School Year is such an emotional and misunderstood question that face to face exchange is necessary before many people will be able to make an objective decision on the subject. Recent developments within the community regarding ESY bear this point out.

The total responses for each question posed in the survey appear in illustration 4.0 on page 48.

The additional comments that appeared with any regularity and are worth consideration are as follows:

Illustration 4.1

BRICK TOWNSHIP PUBLIC SCHOOLS
BRICK TOWN, NEW JERSEY
EXTENDED SCHOOL YEAR PARENT OPINION SURVEY

1. Our family was represented at the following number of Board of Education sponsored public information meetings regarding the 45/15 Extended School Year Program.

117	One Meeting	97	Three Meetings
144	Two Meetings	148	No Meetings

2. Please evaluate the following statement:
"Brick Township Public Schools would be solving many of its over crowding problems and would, at the same time, maintain the educational level of the system if not improve it by implementing the 45/15 Extended School Year Calendar district wide".

73	Strongly Agree	70	Mildly Disagree
94	Mildly Agree	246	Strongly Disagree
		13	No Opinion

3. Will your family volunteer to be participants in the 45/15 experiment in Lanes Mill Elementary School as presented at the meetings. Remember, volunteers are being solicited from both the Lanes Mill sending area and the Veterans Memorial Elementary sending area.

79 yes 407 no 30 not sure

4. If the answer to #3 is yes, please supply the following information.

~~Mr. Mrs.~~ 133 children
~~Address~~
Number of children who will participate K-5

5. If you choose not to volunteer your child to participate in the 45/15 experiment, please check those reasons which influenced your decision.

243 Do not like 45/15.
120 45/15 will never work in Brick Township.
104 Our vacation plans have already been made for the summer.
122 Mother is working and 45/15 creates a baby sitting problem.
181 Other household members attend middle or high schools causing conflict in school schedules.
119 Other_____

6. Please check the statement which best fits your feelings regarding 45/15.

91 45/15 should be instituted as soon as possible on an experimental basis in the Lanes Mill School.
117 I am not prepared to accept the program at this time but 45/15 should be given further consideration.
271 45/15 should be disregarded in Brick Township.
40 Other_____

7. The 45/15 scheduling should be implemented in a manner other than just one elementary school.

150 Yes 214 No 70 Not Sure

ADDITIONAL COMMENTS:

1. Parents did not want their children as part of an experiment.

2. We should be worrying about new schools or additions and not Extended School Year.

3. The cost of air-conditioning is too costly, especially for an experiment.

4. Extended School Year would result in too much of a change in our life style.

5. This is a resort area and schools should, therefore, be closed during the summer.

6. If Extended School Year were instituted, it should be in more than one school.

7. Public meetings should have been started earlier. Everything is too quick.

8. The Board of Education should just go ahead and do it.

PRESENTATION OF INSTRUMENTS TO CONTINUALLY EVALUATE DEGREE OF ACCEPTANCE OF PILOT PROJECT ON THE PART OF STUDENT, PARENTS AND TEACHERS

One of the objectives, that the Research Planner was responsible for, dealt with developing instruments capable of periodically measuring the degree of acceptance of Extended School Year on the part of the participating students, parents and teachers. Instruments were worked on. During the course of time, however, it was found out that the National Council on Year-Round Education, based at the Virginia Polytechnic Institute, was com-

pleting a nationwide field testing of these types of instruments. The final form would be available in the latter part of May, 1975. With the banks of computers and other resources available to the National Council, Mr. Underwood decided we would rely on their surveys and not our own. Therefore, there are no samples presented in this report. However, if implementation is decided upon, instruments will be available long before they are needed.

CHAPTER IV

ORGANIZATION OF PLANT PHASE

PRESENTATION OF CALENDAR

Mr. Underwood, Extended School Year Project Director, indicated an acceptable calendar would be within the district's fiscal year and encompass the 1975-76 district school calendar. The final Extended School Year calendar, as presented, does just that. In order to provide the 180 minimum school days, as required by New Jersey law, the calendar begins on July 1, 1975 and extends through June 30, 1976.

The Extended School Year schedule divides the students into four groups or tracks of which three are in school at all times. Three of the four tracks, identified as A, B and C, would begin on July 1st with the fourth, identified as D would begin fifteen days later on July 23rd. Track A would complete instruction on June 8, 1976 while B, C, and D are secured on June 30, 1976.

The following table indicates the days of student attendance and provides a 15 day holiday between each educational session.

Track	Days	Total
A	45,45,45,46	181
B	30,45,45,45,16	181
C	15,45,45,45,32	182
D	45,45,45,47	182

The extra days are provided for emergency closing of school. The calendar is presented in illustration 4.1 page 53 exactly as it was presented to the community at the second public information meeting.

PUPIL, TEACHER SCHEDULES

Students participating in the program will be drawn from both Veterans Memorial Elementary School and Lanes Mill School. Participation will be voluntary and the figure of 850 is proposed as the desired number.[1]

Estimating 150 students in Kindergarten, the re-

---

[1] Analysis of Differences in Cost...For Lanes Mill School, Brick Township, New Jersey: January 21, 1975, p. 2

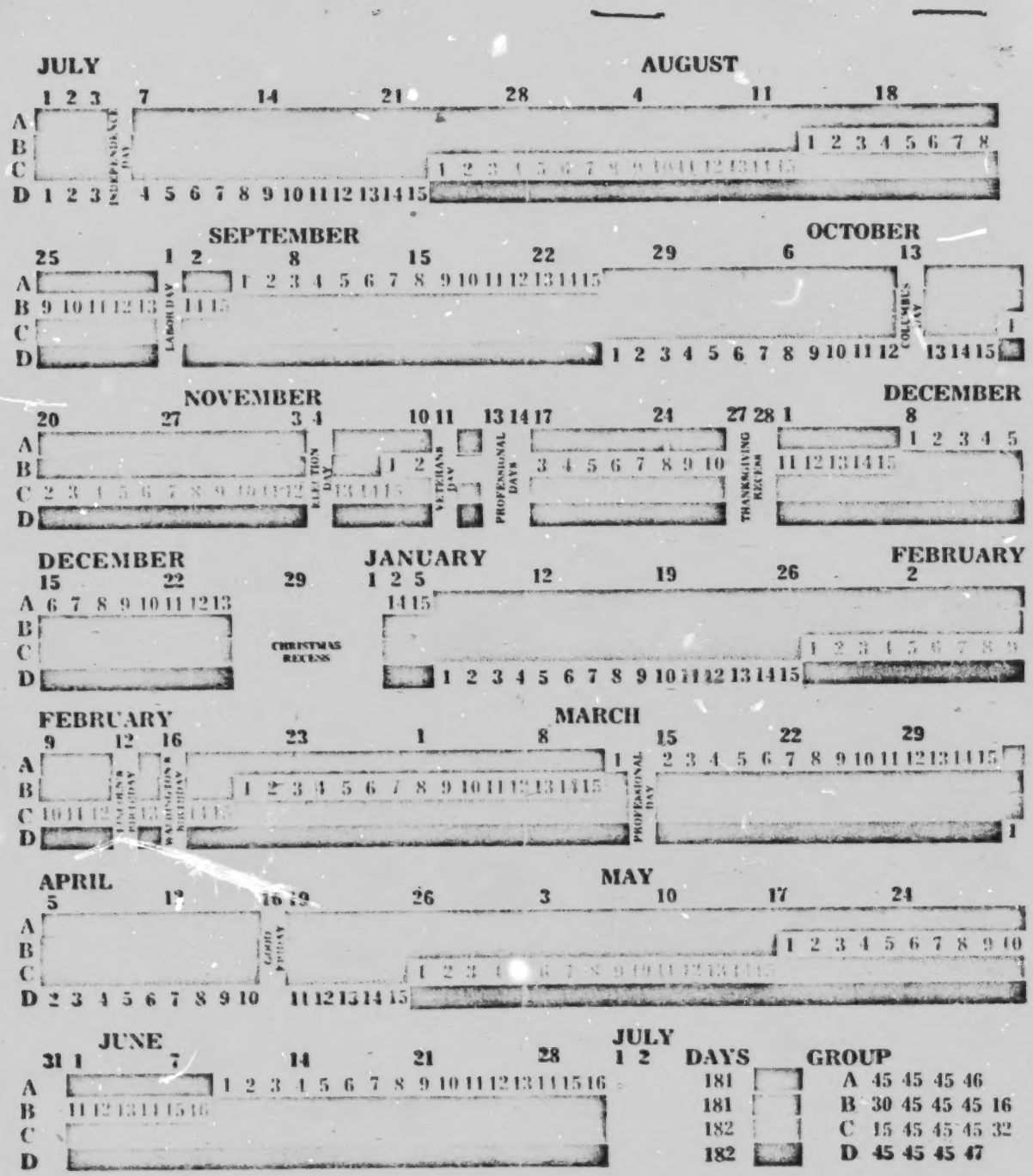


Illustration 4.0
45/15 Calendar Designed for Brick Township

maining 700 students would be placed in classes of approximately 28 students each. Considering the future potential, an additional 50 students, for a total of 900, could be absorbed in the program without class size going beyond 30 students. The 150 Kindergarten students will be placed on three tracks. All students from the same family will be on the same track. As numbers permit, students from the same areas will, likewise, be on the same track.

Classroom teachers in the Extended School Year program proceed through the year lock-stepped with their class. This is to say that when the students are on holiday, the teachers will also enjoy this consideration. The children will remain with the same classroom teacher throughout the term of the program.

Grade level schedules in relationship to the four track program are as follows:

Track A	Track B	Track C	Track D
1-Kindergarten	1-Kindergarten	1-Kindergarten	1-First Grade
2-First Grades	1-First Grade	1-First Grade	1-Second Grade
1-Second Grade	2-Second Grades	1-Second Grade	1-Third Grade
1-Third Grade	1-Third Grade	2-Third Grades	2-Fourth Grades
1-Fourth Grade	1-Fourth Grade	1-Fourth Grade	1-Fifth Grade
2-Fifth Grades	1-Fifth Grade	1-Fifth Grade	

The lack of a Kindergarten in Track D presents a problem that is peculiar to the Lanes Mill experiment and not 45/15. If the experiment should continue for more than one year in a single school, special arrangements would have to be made to rectify this difficulty.

The proposed schedule of classroom teachers will provide one flexible classroom during each segment. This classroom will be scheduled for use by teachers of art, vocal music, instrumental music and/or other special groups.

Special area teachers need additional consideration. The art, music, physical education, librarian, nurse and Title I Teachers will be employed from July 1, 1975 to June 30, 1976. (see Negotiations, page 63. These teachers will be paid on a per diem basis for all working days beyond those of teachers in the district's other schools.

The above mentioned teachers would be permitted one continuous five day vacation time, if requested, without pay. This period of time shall not be immediately

before the normal Christmas closing or within the first three weeks of the start of the Extended School Year or three weeks prior to its conclusion. No more than two people will be out at any one time. (see Negotiations, page 63). With all individuals, a substitute shall be employed for the vacation week including the school nurse. The exception being the Title I Teacher where the program would be curtailed for a week.

The speech teacher is presently assigned to Lanes Mill School for 3 days per week. She will now be employed for 5 days per week in the manner of special area teachers from July 1, 1975 to June 30, 1976. Her chosen five days vacation time, if desired, shall be consecutive and no substitute need be employed.

ADDITIONAL NON-PROFESSIONAL PERSONNEL

One additional night custodian is needed to keep the school properly maintained throughout the Extended School Year program. Three night custodians would provide an excellent maintenance program. No substitutes will be needed in case of sickness or for

the vacation period provided the men during the year.

The school matron, who is now employed 6 hours per day on a 10 month contract, will have her contract extended to 12 months.

Additional cafeteria personnel will be required for the period from July 1 to September 1, 1975 and approximately June 21 to June 30, 1976. During these time periods, lunches will be prepared at Lanes Mill School. Subsequently, the two people normally employed from September to June will begin on July 1, 1975 and extend to June 30, 1976. Additional needs in the area of personnel for the summer period should be determined by Mrs. Dougherty, Cafeteria Director.

Schedules, attendance, record-keeping, etc., will be increased with the Extended School Year. An additional 1/2 secretary will be needed.

TEACHER RECRUITMENT AND IN-SERVICING

The Extended School Year program will require twenty-eight classroom teachers in addition to those in art, music, physical education, library, Title I

and speech. Teacher participation, as with students, is on a voluntary basis. The program was presented at seven meetings held for professional staff members of the district. As a result of these presentations, twenty-one classroom teachers have volunteered participation in addition to all special area teachers. This leaves us with a present shortage of seven classroom teachers. The majority of Lanes Mill School staff members have chosen to participate. Before the program can be implemented, the seven staff vacancies will have to be filled.

One In-service meeting has been held for Extended School Year staff members. The topic of Curriculum Segmentation and Intersession Materials, along with pre- and post-testing, was touched upon. The main purpose was to discuss curriculum input with the teachers. Following the meeting, curriculum input materials were obtained from the teachers and forwarded to Mr. Napier, Curriculum Planner.

Should the decision of the Board of Education be to implement Extended School Year for 1975-76, four additional In-service meetings for staff are planned.

These meetings would take place in four consecutive weeks and encompass faculty assignment, materials, and equipment; pre- and post- test evaluation; special assignment scheduling; and segmentation of curriculum and use of intersession materials.

IN-HOUSE PROBLEMS AND PROPOSED SOLUTIONS

General

1.1 Cafeteria During Summer Months.

Because Lanes Mill School will be the only school operating fully during July and August, the preparation of lunches will have to originate there. Under traditional school operations, the matron is employed 4 hours per day and the assistant 1½ hours at Lanes Mill School. These hours would be increased to 4 hours and 2½ hours to provide time for the preparation of lunches. Salary will continue at the hourly rate.

The lunches will still continue as class A in order to meet Federal Standards. Because of summer temperature, the menu could consist heavily of sandwiches with occasional soup, hamburgers, hot dogs, pizza and one other hot meal per week. The menu would be developed by a properly qualified dietitian.

Since Lanes Mill School has not been used in the preparation of food, there will be a need for certain equipment. Meat slicers, pots, pans, trays, large knives, etc., could be obtained from the high school for this short period of time. The type of menu intended for the summer would determine the quantity and type

of equipment needed. The present refrigerator needs a compressor replacement at a cost of approximately $400.00. (see Financial Implications on page 129)

In September, with the opening of all schools, the Lanes Mill School cafeteria would revert to the procedure and hours used over past years in a September to June educational program.

1.2 School Day

During July and August, the school day will consist of the same number of hours presently used (6 hours). However, for these two months classes will begin at 7:45 A.M. and continue until 1:45 P.M.

Under such a schedule, children will be home by 2:00 P.M. with plenty of time to get to the beaches. Mr. Underwood, Project Director, has indicated that studies show the hours of 1:00 P.M. to around 3:00 P.M. are prime time for beach use.

Transportation should be no problem as there will be no conflict with other schools during the summer periods.

In September, Lanes Mill School hours could revert to the present 9:00 A.M. - 3:00 P.M. to blend with the district program.

1.3 Textbooks

No problem is seen in the area of textbooks since present provisions are for 744 students and the Extended School Year would place 640 in class at any one time. The present 1975-76 budget will be adequate for a few additional books or replacement of worn text. Since grade level children will be returning to classes vacated by the same grade level, the textbooks will be there available to them.

1.4 Teaching Supplies

Under the formula used by Brick Town, $18.00 per student is provided in the 240 account. In calculating the 1975-76 budget for the traditional school year, enrollment figures were based on 780. With the proposed 850, under Extended School Year, this produces a difference of 70 students. Our traditional budget has been cut and in order to provide workbooks, etc., for the additional 70 students, it is mandatory that $18.00 per student or an additional $1260.00 in the Extended School Year 240 budget account be provided. Accounts of 230A, 230B, 230C, 230E and 250A need not be increased.

There appears to be an additional cost. This is not so. Remember that the 70 extra students are being transferred from Veterans Memorial Elementary School. The money provided for their education should be transferred also.

1.5 Administration

During the period of time when the Extended School Year principal is on vacation, the operation could be covered by the vice-principal of Emma Havens Young School. This will be necessary only if the vacation time taken extended for one week or beyond. On a one day basis. the Elementary Assistant Superintendent could be on call if needed.

During the July-August period, other elementary principals could be present during the Extended School Year principal's vacation days. This would be similar to a procedure followed when summer school was in session during previous years.

Should the Extended School Year program be adopted for succeeding years, additional administrative help in the form of a vice-principal may be required.

1.6 Field Trips

Field trips will now be possible during July and August of 1975 and late June of 1976. Trips would even be encouraged during this time as our own local busses could be used, thereby reducing the cost factors.

1.7 Attendance

Attendance cards and daily tally sheets would be kept for July and August in the same present manner. These sheets could be kept at the school and sent to the computer room when it reopens in September. There is no need for the expense of the service during the summer months.

Student absence will be checked, by phone, by the school nurse.

1.8 Air-Conditioning

Air-Conditioning of Lanes Mill School has been estimated at $100,000. This figure should be refined to a more exact amount through an engineering study initiated by the office of the Business Manager. This study should begin immediately.

Installation of the air-conditioning should begin immediately after the Board of Education reaches a final decision, should it be favorable toward Extended School Year.

1.9 Custodial Supplies

The Business Administrator's office has already decided what is needed in Lanes Mill School in the area of custodial supplies. The custodial supply order will have to be adjusted in order to compensate for the 70 additional students.

1.10 Storage

The outgoing teacher will need an area for storage of her personal items and workbooks of the students. Provision for 3 large cabinets per grade level or a minimum of 17 cabinets. No money has been provided for this equipment. The Hammett Company has a 78" x 36" x 24" deep metal cabinet for $90.95. Our maintenance department probably could put rollers on the cabinet corners.

NEGOTIATIONS

The following items are subject to negotiations between the Board of Education and the Brick Township Education Association or possibly persons involved.

The following are only suggestions:

2.1 Contract - Classroom Teacher

a) Length of the contract

1) July 1, 1975 - end of the program. While the starting date can be indicated, the final date may be beyond June 30, 1976 if schools must be closed two or more days due to emergency.

2) Maximum number of actual working days - 185.

b) Salary as per scale under 1975-76 negotiated contract.

2.2 Contract - Special Area Teachers (art, music, nurse, etc.)

a) Length of the Contract

1) July 1, 1975 - end of 1975-76 program.

2) All days worked beyond actual 185 working days shall be paid on a per diem based on a 185 day contractual contract.

3) Vacation period, if desired, without pay, limited to two teachers at any one time.

4) Sick days - two additional sick days be added for the pilot Extended School Year contract. One each for the months of July and August.

2.3 Establishment of Pay Days

Pay days are every two weeks as with the rest of the district. Those teachers on holiday at the scheduled pay day can either pick their check up at the school, request it be mailed to them, or have it held until they return.

CHAPTER V

THE PILOT PROJECT EVALUATION DESIGN

The program proposal for the Extended School Year (ESY) Pilot Program in Brick Township specifies the formulation of an evaluation design that utilizes experimental and control groups to measure the effect of the ESY calendar on our students': a) cognitive learning, (academic achievement in reading and math); and b) rate of retention of knowledge. Formulating a research design that can produce this evaluation is hardly without precedent as any number of previous ESY projects will testify.[1] Nonetheless, each charge of the evaluation design does present its own challenges.

Measuring the effect of an ESY calendar on the students' cognitive learning faces a primary challenge inherent to most behavioral science research - controlling the other social, economic, psychological, physiological, or enviornment variables usually present in the test situa-

---

[1] Joyce Coyden and Barbara Thornton, Year-Round Schools, A Chronological Selected Bibliography From 1907 to 1972. (Columbia, South Carolina: Richland County School District 1, 1972).

tion. The specific variables the ESY researcher attempts to hold constant between experimental and control groups include: the sex, grade level, I.Q., achievement level, and socioeconomic status of the students tested; available fiscal and instructional resources; teacher experience; instructional methodology; curricular design; classroom structure; class size; duration of instruction; and more.[2] Unfortunately, some ESY research designs have experienced difficulty in overcoming the challenge presented in controlling the cited variables. Nygaard, for example, in a recent and comprehensive review of six major ESY projects selected for the relative scope and thoroughness of their evaluation procedures, concludes that "evaluation programs in the past have been generally inconclusive..(largely due to the)...great difficulty in separating extended school year from other variables in evaluation design."[3]

---

[2] John Heim and Louis Perl, The Educational Production Function: Implications for Educational Manpower Policy, Monograph 4 (Ithaca, New York: Institute of Public Employment, Cornell University, 1974), pp. 1-15.

[3] Debra D. Nygaard, Evaluations of Year-Round School Programs, an ERS Research Brief (Washington, D. C.: Educational Research Services, Inc., 1974), p. 35.

Many ESY projects such as Prince William County, Virginia[4] and the Becky-David School, Missouri[5] could readily agree with Nygaard's statement.

No doubt much of the difficulty can be attributed to the limited nature of many ESY studies. As is the case with many pilot projects in the field on education, there is tremendous pressure placed on the evaluation design to assist in a relatively early "go - no go" decision concerning the continuation of the project for the following year. Consequently, ESY evaluation studies are often conducted in a short time span using relatively small samples from the project population.

However, the limited nature of many ESY evaluation designs does not offer a complete rationale for the difficulty with variable control. Perhaps one of the major disruptive influences overlooked or understated in many ESY project reports has been highlighted by Nygaard. Addressing

---

[4] Virginia Department of Education, Proceedings of the Fifth National Seminar on Year-Round Education (Richmond, Virginia: Virginia Department of Education, 1973), pp. 24-26.

[5] James L. Craigmile and Robert Hymer, An Educational Evaluation of the Year-Round Schedule in Becky-David Elementary School (St. Charles, Missouri: Francis Howell School District, 1970).

herself to the educational effect resulting from the typical ESY procedure of simultaneously adopting some form of Continuous Progress Curriculum and Open Classroom structure along with the ESY calendar, she charges that... "schools have overburdened the system by attempting too many changes at once."[6] Equally important from the standpoint of research design, simultaneous and radical curriculum and classroom structure revisions coupled with the adoption of an ESY calendar could strain and contort most ESY project evaluation designs beyond the point of scientific validity. In reality, the evaluation design is asked to measure the effect of not one but three major educational changes introduced simultaneously. Even in project situations less limited than those found in most ESY studies, such overburdening evaluation design specifications could produce a severe variable control problem.

The apparent solution may be to avoid the adoption of the ESY calendar. This avoidance would undoubtedly serve the twofold effect of lessening the burden on both the school system and the evaluation design. Exercising that kind of restraint is not possible with many ESY schedule

---

[6] Nygaard, p. 35.

designs. Nonetheless, many ESY projects that never intended major curricular or structural revisions have been caught by surprise. For example, Valley View School District found, "By far the most significant problem has been the unanticipated pressures inherent in the 45/15 (ESY) Plan to move toward individualized instruction, multi-graded team teaching, and open space or informal education."[7] Hopefully, the Brick Township ESY Project, forewarned of these pressures, will be better prepared to cope with them when the 45/15 Plan is implemented at the elementary level.

The other evaluation charge of the ESY program design for Brick Township was the measurement of rate of knowledge retention by students. Rate of retention studies usually focus on a very narrow selection of concepts or skills which are taught to an experimental and a control group, each of which have been pre-tested to determine their previous mastery of the material. Immediately following the instructional period both groups are tested and an achievement score obtained. Later, after a pre-determined lapse of time, both groups are re-tested to measure the amount of

---

[7] Valley View School District, Evaluation of The 45/15 Plan, A Year-Round School Operation of Valley View School District 96, Lockport, Illinois. Final Report (Springfield, Illinois: State Office of the Superintendent of Public Instruction, 1972). ERIC Document ED073573, p. 12.

knowledge still retained. The purpose being to determine which instructional system produced the greater student retention.

As was the case with cognitive learning, measuring the effect of an ESY calendar on rate of retention of knowledge also faces challenges. Obviously, since retention studies require the use of experimental and control groups, controlling the other variables in the test situation presents the challenge identified earlier in the discussion of cognitive learning measures. In addition, retention studies are particularly sensitive to the timing of and time lapse between the first and second post-tests. Dr. Patricia Horton, Research Specialist for the Educational Improvement Center, South Jersey, suggests that the diversity of instructional schedules among students in the control and experimental groups of an ESY project render individual rate of retention studies and impractical procedure and a scheduling nightmare.[8] Finally, individual retention studies, which test only narrow sets of skills or concepts, cannot be employed to draw board conclusion concerning the impact of ESY scheduling on rate of retention of student knowledge. Perhaps

---

[8] Interview with Dr. Patricia Horton, Educational Improvement Center, South Jersey, held on March 1, 1975.

the best solution is to draw out rate of retention implications from the gain analysis performed on two years of post-test data measuring cognitive learning in the ESY project.

ESY EVALUATION DESIGN: GOALS AND PROCEDURES

Goals:

The goals of the evaluation design for the ESY project in Brick Township are twofold:

(a) to determine the effect of the ESY calendar on the cognitive learning of students in the subject areas of reading and mathematics; and

(b) to determine the effect of the ESY calendar on the rate of retention of knowledge.

Procedures: Test Groups

To determine the effect of the ESY calendar on cognitive learning and rate of retention of knowledge two test groups - an experimental group and a control group - will be established. The experimental group will be comprised of students participating in the ESY pilot project at Lanes Mill Elementary School. The control group, which will serve as a monitor for the experiment, will be comprised of students participating in a traditional school year at Veterans Memorial Elementary School. Each group will consist of 190 students selected

at random[9] from a universal population of approximately 1600 students attending one of the designated schools. For each group the selection process will be stratified by grade level in the following manner:

	Experimental Group	Control Group
Grade 1	40	40
Grade 2	50	50
Grade 4	50	50
Grade 5	50	50

The Grades 1-2, Grades 3-4 stratification pattern was used in the hope of detecting any difference in academic adjustment to an ESY calendar between the lower and upper primary grades. The possibility exists that lower level children, less imbued with the traditional school calendar, may have an easier adjustment to make.

Conversely, we are aware of the rapid rate of maturation common to the first grade level. This awareness produces doubts concerning the valdity of a first grade testing situation where the scheduling constraints will require that the experimental group be tested at a time when they are chronologically two months younger than the control

---

[9] Paul Gaines and George Hare, Elementary Statistical Data Analysis for The Behavioral Sciences (New York: McGraw-Hill, Inc., 1968).

group.[10] In addition, Hess has recently demonstrated that pre-school enviornmental factors heavily influence the score obtained in first grade achievement pre-tests. For both the above reasons it was decided to provide a population sample on the second, fourth and fifth grade levels large enough to ensure a statistically valid data base regardless of the later analytical value of the first grade data collected.

Finally, it was decided that two levels, kindergarten and third, be excluded from the evaluation program. The rationale of the kindergarten exclusion is obvious. Achievement testing at this level is almost exclusively of a readiness nature and is often of dubious validity. On the other hand, the exclusion of the third grade level from the testing program was an administrative decision due to scheduling constraints unique to that grade level. It would have been extremely difficult to arrange post-testing dates for both the experimental and control groups that provided an equal lapse of instructional time between pre and post-tests.

---

[10] Robert Hess, "Class and Ethnic Influence upon Socialization," in Carmichael's Manual of Child Psychology, 3 ed., vol. 2, ed. P. H. Mussen (New York: John Wiley and Sons, 1970).

Procedures: Control of Variables

To summarize an earlier statement, the variables inherent to the test situation that must be controlled can be grouped under three headings: pupil-centered variables, instruction-centered variables, and enviornment-centered variables. Controlling the effect of these variables on the test situation is necessary if an accurate measure of the effect of the ESS calendar on cognitive learning is to be obtained. The actual control of the inherent variables is accomplished in one of three ways:

(a) matching procedures (ensuring the variable's absence from, or presence in equal intensity in the control and experimental test groups);

(b) sampling procedures;

(c) statistical procedures; or

(d) a combination of the above.

Pupil-centered variables. The pupil-centered variables are sex, age, grade level, I.Q., achievement level and socioeconomic status.[11] The first set of these - sex, age and grade level - will be controlled by the procedures of the sampling process, the second set - I.Q. and achievement - by statistical procedures, and the final

---

[11] Heim and Perl, pp. 9-10.

variable - socioeconomic status - by a combination of matching and statistical procedures.

In addressing I.Q. and achievement variables, available evidence, derived from previous I.Q. and achievement testing detailed below, indicates a fairly close match in I.Q., reading achievement and math achievement scores for the control (Veterans Memorial Elementary) and experimental (Lanes Mill Elementary) populations at the upper grade levels.

MEAN I.Q. SCORES, SHORT FORM TEST OF ACADEMIC APTITUDE-MARCH, 1974

	Grade 4	Grade 5
Lanes Mill	105.9	105.6
Veterans Memorial Elementary	104.8	104.5

MEAN ACHIEVEMENT SCORES, READING AND MATHEMATICS CALIFORNIA TEST OF BASIC SKILLS-MARCH, 1974

	Reading Grade 4	Math Grade 4	Reading Grade 5	Math Grade 5
Lanes Mill	5.2	4.8	6.3	6.2
Veterans Memorial Elementary	4.9	4.8	6.2	6.0

Nevertheless, the ultimate procedure for controlling the variables of I.Q. and achievement will be a statistical one. I.Q. and achievement pre-test scores at each grade level in both the experimental and control groups will be

subjected to an independent t-test to determine any significant differences and, if necessary, adjust the test groups accordingly.

The final pupil-centered variable specified above is socioeconomic status. Census data prepared for the ESEA Title I program[12] indicates nearly identical income levels are present in both test groups. The percent of the population categorized as disadvantaged by federal standards was 6.7 for both groups. In addition to level of income, there are two other reliable indicators of socioeconomic status - the educational level and occupation of head of household. This data will be derived from the cumulative record folders of pupils in the test groups. Mean levels of educational experience and percentages of parents in various occupational categories will be determined. Significant differences will be indicated and any required adjustments made in the test groups or statistical analysis.

Instruction-centered variables. The instruction-centered variables in the test situation to be neutralized include: textbook, supply and equipment expenditures;

---

[12] Applied Urbanetics, Inc., Title I Eligibility Data, Fourth Count 1970 Census, Fall 1972 (Washington, D. C. : Applied Urbanetics, Inc., 1973), p. 1.

class size; duration of daily instruction; teacher experience and education; curriculum; instructional methodology; and organizational structure of the classroom.[13]

Several of these variables are present in equal intensity within the experimental and control settings and consequently match. The first of these is the amount of funding received by both test schools for textbooks, supplies, and equipment. Funding in these areas is based on a constant per pupil amount, and, therefore, is equalized for each school building in the district. Two more variables that match in the experimental and control settings are class size and duration of daily instruction. The pupil-teacher ratio is approximately 1 to 30 in each test site at present. ESY projections suggest an average class size of twenty-seven (27) in both the experimental and control school under the ESY project, giving us control over this variable. Furthermore, the duration of daily instruction is identical in both test buildings and will remain so under the ESY project. Finally, instructional organization and curriculum will remain constant in both the experimental and control groups, with each teacher using the same curriculum in a self-contained classroom setting.

---

[13] Heim and Perl, pp. 10-13.

The variables of teacher experience/education and instructional methodology will offer some minor challenges. The years of teaching experience and education background for the staffs of both buildings are roughly comparable. However, some teacher transfers will occur just prior to the beginning of the ESY project and an accurate measure must wait until that time. Measuring differences among teachers with regard to the kind and especially the qualities of the instructional methodology they offer their students must be done by systematic observation. A suitable instrument such as OSCAR, RCS or ETC[14] will be employed on a four-quarter basis with a random sample of the experimental and control group teachers. Any significant differences noted will be incorporated into the data analysis.

Enviornment-centered variables. The final category of variables, enviornment-centered, contains only two not subsumed by the other categories and detailed above. One of these variables is school plant facilities.[15] In this instance both the experimental and control facilities are

---

[14] Richard L. Ober, Ernest L. Bentley, and Edith Miller, Systematic Observation of Teaching (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1971).

[15] Heim and Perl, p. 15.

comparable. Each is a modern one-story building situated on spacious grounds with similar classroom dimensions, and possessing other basic facilities such as library services, gymnasium and remedial instruction area. The other enviornmental variable, demographic situation,[16] also matches. Both test buildings are situated in suburban, lower-middle class neighborhoods which are geographically adjacent. Neither neighborhood contains any measurable minority population.

Test Instruments

The evaluation program of the ESY Pilot Project in Brick Town will employ as test instruments:

(a) California Short-Form Test of Mental Maturity,
(b) Short-Form Test of Academic Aptitude,
(c) Comprehensive Test of Basic Skills, Form Q and R,
(d) Comprehensive Test of Basic Skills, Expanded Edition, Form S.

The test materials will be distributed among the various grade level groups to be tested as outlined below.

PRE-TEST INSTRUMENTS

Grade One

California Short-Form Test of Mental Maturity, Level 0
Comprehensive Test of Basic Skills, Form S, Level B

---

16 Ibid.

Grade Two

California Short-For Test of Mental Maturity,
Level 1
Comprehensive Test of Basic Skills, Form S,
Level C, Partial Battery

Grade Four

Short-Form of Academic Aptitude,
Level 2
California Test of Basic Skills, Form R,
Level 1

Grade Five

Short-Form of Academic Aptitude,
Level 2
California Test of Basic Skills, Form Q,
Level 2

POST-TEST INSTRUMENTS

Grade One

California Short-Form Test of Mental Maturity,
Level 1
Comprehensive Test of Basic Skills, Form S,
Level B

Grade Two

California Short-Form Test of Mental Maturity,
Level 1
Comprehensive Test of Basic Skills, Form S,
Level C, Partial Battery

Grade Four

California Short-Form of Academic Aptitude,
Level 2
California Test of Basic Skills, Form Q,
Level 2

Grade Five

California Short-Form of Academic Aptitude,
Level 3
California Test of Basic Skills, Form R,
Level 2

Test instruments produced by the California Test Bureau were selected for several of reasons. A primary factor was that

students, teachers, and administrators are familiar with their format. In addition, they provide the most economical test package available since some components are already present within the school system. A complete cost breakdown is provided as Appendix A and B on pages 162 and 163.

Test Scheduling

The 1st, 2nd, 4th, and 5th grade sample groups will be pre- and post- tested during the first year of the ESY Pilot Project to determine differences in cognitive learning present in the experimental and control groups. Students in the 1st and 4th grade sample groups will be post-tested again as 2nd and 5th grade students during the second year of the project to re-check first year conclusions of the effect of ESY on cognitive learning and to measure rate of retention of knowledge for experimental and control groups.

Since traditional and ESY attendance schedules differ, care must be taken in arranging pre-and post- test dates for the experimental and control groups in order to ensure an equal lapse of instructional time between testing periods for both groups. Consequently, the following rules apply:

1. Post-testing dates at each grade level should be first established for the control groups and the number of instruction days between pre- and post- tests counted.

2. Post-test dates for the experiment groups are determined by matching as closely as possible the number of instruction days established by rule 1.

3. Testing dates for the experiment group should avoid the first 3 days of any 45 day instruction cycle; nor should they span any two instruction cycles.

4. A minimum of 120 instructional days must separate pre-test and post-test sessions.

ESY EVALUATION DESIGN: DATA ANALYSIS

Pre-Test Data Analysis

To reaffirm the validity of sampling procedures statistical analysis will be applied to pre-test data. At each grade level mean scores for aptitude, reading achievement, and math achievement, for experimental and control groups, will be subjected to an independent t-test to disclose any existing significant differences. If significant differences do occur, corrective measures are possible in either the sampling or post-test analysis procedures.

Post-Test Data Analysis

At each grade level tested, mean achievement and gain scores for reading and mathematics will be derived for the experimental and control groups. Each mean score thus derived will be subjected to an independent t-test to determine any significant difference between the experimental and control group. From this analysis, conclusions will be drawn concerning

the effect of the ESY calendar on cognitive learning at the various grade levels tested. In addition, it may be possible to draw conclusions about variations in the effect of the ESY calendar on cognitive learning between the lower primary level (grades 1 and 2) and the upper primary level (grades 4 and 5). It is doubtful that any statements based on sex differentiation analysis at the various grade levels could be made due to the rather small samples that would be utilized in such an instance. However, the possibility of performing other data analysis during the post-test period is not precluded.

The post-test analysis for the second year of the pilot project will employ data from grade levels two and five. The post-test analysis performed during the first year of the project will be repeated using the second year data in order to re-evaluate earlier conclusions. It is also hoped that an analytic comparison of experimental and control group mean gain scores in reading and mathematics for two consecutive years may allow some tentative statements concerning the effect of the ESY calendar on rate of retention of knowledge.

SUMMARY

The program proposed for the Extended School Year Pilot Program in Brick Township specifies the formulation of an

evaluation design that utilizes experimental and control groups to measure the effect of the ESY calendar on our students': a) cognitive learning, (academic achievement in reading and math); and b) rate of retention of knowledge. Formulating a research design that can produce this evaluation is hardly without precedent, but does present challenges.

The primary challenge is the control of the variables, (the I.Q., sex, and socio-economic status of the students; teacher experience, class size; etc.), present in the test situation that can affect the measuring process. A variable control procedure has been established for each of the variables identified to hold their influence in abeyance so that an accurate measure of the instructional effects of the ESY calendar can be derived.

The evaluation design provides for the establishment of an experimental test group of students which will participate in the ESY Pilot Project at the Lanes Mill Elementary School and a control test group of students which will participate in the traditionally scheduled program at the Veterans Memorial Elementary School. Each test group will consist of scientifically selected random sample of 190 students in grades 1, 2, 4 and 5.

I.Q. and achievement tests produced by the California Test Bureau will be administered to both test groups in a pre-post-test fashion at the beginning and near the end of the pilot project year. California Test Bureau test instruments were selected for their quality and present staff familiarization with their format. In addition, they provide the most economical test package available since many components are already present within the school system. Rigorous rules for test scheduling have been established to ensure evaluation validity.

Test analysis will be performed in three phases. In the first phase, pre-test data derived from the experimental and control groups will be subjected to statistical analysis to certify that significant differences in reading and mathematic achievement do not exist between the two groups before the start of the project year. In the second phase, pre- and post- test scores for each group will be analysed to determine if there is any significant difference in gains in reading and mathematics achievement demonstrated by ESY group as opposed to the traditionally scheduled school year group. The third analysis phase would be instituted if the project were to continue for a second year. First year results would be double-checked and analysis of differences in rates of retention of knowledge performed.

CHAPTER VI

CURRICULUM AND INSTRUCTION

For a variety of reasons, most Extended School Year plans have a direct and immediate impact upon a district's curriculum and organizational setting for instruction. This may seem like an obvious statement, especially in light of the scheduling characteristics of ESY presented thus far in this report. Yet, research suggests otherwise. Many ESY projects that never intended major curricular or instructional organization revisions have been caught by surprise. Perhaps the experience of the Valley View School District stated earlier is worth repeating: "By far the most significant problem has been the unanticipated pressures inherent in the 45/15 (ESY) Plan to move toward individualized instruction, multi-graded team teaching and open space or informal education".[1]

The source of much of the inherent pressure for major change in curriculum and instructional organization issues from the differences in teacher and student yearly attendance

---

[1] Valley View School District, Evaluation of The 45/15 Plan, A Year-Round School Operation of Valley View School District 96, Lockport, Illinois. Final Report (Springfield, Illinois: State Office of the Superintendent of Public Instruction, 1972). ERIC Document ED073573, p. 12.

schedules present in most ESY projects. Valley View's 45/15 Plan is typical in this regard with the students participating in 180 says of instruction per year and over 50 per cent of the faculty employed for 240 days of instruction per year.[2] The attendance differences mean that teachers are present year-round but students are periodically moving in and out of the instructional setting. Consequently, for school districts whose basic unit of instructional organization at the elementary level is the self-contained classroom, (one teacher instructing one class in all major academic areas), each teacher must periodically take charge of a new section coming in from vacation as her current class departs for their vacation. Eventually, the pressures produced by this situation lead to major changes in the basic unit of instructional organization and the curriculum. The self-contained class unit usually gives way to the "team" concept with the curriculum restructured as some variety of individualized instruction.

In the "team approach" an entire grade level is taught collectively by a team of teachers with individual students following their own schedule and check list of skills to be mastered in various subject areas as they move

---

[2] Ibid.

from large group, to small group, to individual instruction, to independent study. Of course, the more open style of instruction implied by the team approach described above is not limited to ESY scheduled schools. Many traditional calendar schools are reporting success using this style of instructional organization.[3]

When implemented in conjunction with an ESY 45/15 calendar, another instructional advantage can be derived from the team approach. As the Brick Township Extended School Year Feasibility Study recommended, the duration of the academic year can be matched to the learning ability of the individual student. For certain students,

> "The 180 day academic year could be expanded or contracted by 45 day quarters to fit the individual needs of the student's educational requirements. This would especially be true for children going from kindergarten to first grade. This could replace, especially in the primary grades, our traditional "social promotion" or "retention" patterns. Continuing along this line of thinking, children could enter kindergarten four different times a year. This method would be more compatible with student's individual needs."[4]

---

[3] Debra D. Nygaard, Evaluations of Year-Round School Programs, an ERS Research Brief (Washington, D. C.: Educational Research Services, Inc., 1974), p. 35.

[4] Virginia Department of Education, Proceedings of the Fifth National Seminar on Year-Round Education (Richmond, Virginia: Virginia Department of Education, 1973), pp. 24-26.

Despite the instructional advantages to be derived from the open instructional style of the team approach, in conjunction with converting from the self-contained classroom, the ESY calendar must proceed with caution. The success of this approach requires extensive pre-planning and preparation measured in years rather than months. In addition, the typical ESY procedure of attempting to simultaneously adopt some form of individualized curriculum and team teaching structure along with the ESY calendar, usually results in an overburdening of the instructional function of the system.[5] The wiser course of action is to first adopt the ESY calendar, reserving other changes to a later date when the settling-in process is complete.

To avoid the situational pressures cited earlier, when the ESY calendar is adopted in a system with a self-contained structure and curriculum, the simplest procedure is to lock-step each teacher and class. In a lock-stepped schedule both teachers and students have a yearly attendance schedule of 180 academic days. Each teacher and his students attend class on the same schedule and share the same vacations. Thus, the self-contained classroom and curriculum are pre-

---

[5] James L. Craigmile and Robert Hymer, An Educational Evaluation of the Year-Round Schedule in Becky-David Elementary School (St. Charles, Missouri: Francis Howell School District, 1970).

served as the basic instructional unit. The Brick Township Feasibility Study recommended just such a procedure and further cited the maintainance and development of the student-teacher relationship throughout the school year as another advantage.[6]

With a lock-stepped teacher-student schedule, the ESY 45/15 calendar, at the elementary level, can be adopted with relative ease from an instructional point of view. Only minor changes are necessary in the curricular area, consisting of a segmentation of the curriculum into four quarters of instruction. Nor will this procedure preclude the future transition to an individualized curriculum and team teaching structure at a later date convenient to the goals and resources of the school system.

THE FOUR-QUARTER CURRICULUM

Since teacher and class are lock-stepped in the Brick Township ESY plan at the elementary level, the only instructional modification necessary is the segmentation of the curriculum into four quarters to match the four quarters of the 45/15 calendar. Few of these modifications present a real challenge since some subject areas in the elementary

---

[6] Brick Township Board of Education, p. 38.

curriculum are already presented in a four-quarter format. Those subject areas which are not now presented in a four-quarter format are composed of units of shorter duration which can be assembled into quarter-year blocks of instruction.

A singular challenge was present by the ESY start-up schedule. During the first year of the 45/15 plan, staggered attendance is instituted by induced variations in the typical ESY calendar. In the start-up year, Track A and D students will attend school for four 45 day periods during the academic year as per the established 45/15 schedule. However, Track B students will attend school for five periods of 30 days, 45 days, 45 days, 45 days, and 16 days respectively, and Track C students will attend school for five periods of 15 days, 45 days, 45 days, 45 days, and 32 days respectively.

To accommodate the one-time scheduling required by the start-up situation, alternative curriculum segmentations were devised where necessary in each subject area for Tracks B and C. Each division and grouping of units was carefully selected to match as close as possible the duration of the instructional period and the hierarchy of skills and

concepts.

In the sections of this Chapter that follow, the segmentations devised for the various subject areas of the K-5 curriculum are set forth. Each of these areas were discussed with the staff of teachers who have volunteered for the ESY Pilot Project at Lanes Mill Elementary School. These brief subject area narratives are often accompanied by charts depicting the actual segmentaion. The charts are arranged by grade level and indicate quarter-year units or groupings of units. Together, the narratives and charts are designed to be used in conjunction with the Brick Township Public Schools Course of Study manual. This procedure eliminates the necessity for the redundant inclusion of that lengthy manual within this report.

The Kindergarten Program

Kindergarten is a year of readiness whose task is to prepare students for the more formal instructional program of the primary grades. Its first goal is to prepare students in the social and individual areas of development for the enviornment of the classroom and the relationships between student, class, and teacher. Its second goal is to prepare students in the cognitive areas for the academic

work load of future school years.

The kindergarten curriculum in Brick Township reflects the two strands of the readiness program outlined above and provides a four-quarter approach to individual student development within the readiness areas. However, there are definite differences in skill introduction and program sequencing between the two major strands, as established by the twenty member kindergarten Progress Report committee in the fall of 1974. The skills of the physical and social readiness strand are all introduced in the first quarter of the school year and constantly reinforced throughout. The skills of the academic readiness strand are introduced in staggered fashion in different quarters of the school year, but again reinforced from that point to the end of the school year.

The four-quarter approach of the kindergarten curriculum makes segmentation at this level a relatively easy task. Table 6.1 indicates the segmentation of the academic readiness strand of the kindergarten curriculum into a four-quarter calendar. The physical and social development strand is not shown, since all the skills in this area are introduced within the first quarter and reinforced

throughout the year.

Table 6.1
Kindergarten Curriculum-Academic Readiness
Quarter-Year Unit Plan

FIRST QUARTER

Readiness Area	Skill
Language	Can describe objects clearly.
Coordination and Perceptual Development	Can recognize the basic colors.

SECOND QUARTER

Readiness Area	Skill
Language	Can verbalize an experience in sequence.
Coordination and Perceptual Development	Identifies directional dimensions.
	Uses appropriate fine motor movements.
	Can run, jump, hop and skip.
Reading	Shows interest in pictures and books.
Mathematics	Can discriminate among sizes and shapes.

THIRD QUARTER

Readiness Area	Skill
Language	Can repeat name, address and phone number.
Coordination and Perceptual Development	Demonstrates the ability to classify and categorize object.
	Can copy simple objects.

Reading	Can recognize printed name.
	Uses left to right progression.
	Hears rhyming words.
	Can understand and interpret pictures.
	Can name the days of the week.
	Can recognize letters of the alphabet.
Mathematics	Can recognize the numerals 0 to 10.

FOURTH QUARTER

Readiness Area	Skill
Reading	Can print name.
	Can recognize some simple words.
Mathematics	Can recognize rank order.
	Can count objects to 10.

The Language Arts Program

The Language Arts Curriculum is composed of such subject areas as reading, composition, spelling and penmanship, integrated in such a way as to produce a unified body of skills and concepts as a result of the elementary school experience. Though unified in the curriculum, each of the component parts of the language arts program must be segmented in a different fashion to conform to the ESY calendar.

Reading. Reading is, without a doubt, the most important component of the Language Arts Program in Brick Township. The reading program is conducted under the auspices of a multi-basal philosophy for reading instruction. This simply means that a select variety of different basic (basal) reading series, using different instructional approaches, are mandated for use in the schools, rather than a single instructional approach. The multi-basal philosophy allows each school in the district to pursue a co-basal methodology and select one or more instructional approaches to meet the needs of the children it serves. For instance, children in the experimental ESY program at Lanes Mill Elementary School would utilize the analytic approach of the Scott Foresman Basic Reading Series or the linguistic-analytic approach of the Macmillan Reading Program.[7] Use of the multi-basal philosophy means that the child experiencing difficulties with one program or approach can be provided with an alternative program that better suits his needs. Thus, with the multi-basal philosophy, each child in Brick Township can be guaranteed the full opportunity to become as strong and effective a reader as his or her potential permits.

---

[7] for a detailed analysis of reading within the district see, James H. Napier, Reading in Brick Township (Brick Township, New Jersey: Brick Township Board of Education, 1975).

The variety of instructional approaches and materials in Brick Township is matched by a variety of organizational approaches. An organizational approach specifies the "how" and "why" of grouping students for reading instruction. Two of the more common organizational patterns in use are basal grouping and needs grouping.

The basal grouping approach begins with a coordinated series of reading textbooks and workbooks that provide a logical progression of steps to the mastery of the basic reading skills. Each series may have a distinct sequence of basic reading skills but each ultimately leads to a mastery of the same set of reading skills. In the basal approach, students are grouped according to their level of reading development and share a common set of materials and sequence of skills for that level. The number of basal reading groups in a given classroom will vary. It can range from one to four or more with three being the most common number.

Needs grouping as an organizational approach has been brought about by the advent of the Prescriptive Reading Inventory (PRI), a criterion-referenced reading test. The PRI provides a diagnosis of the reading strengths and weaknesses of each student and a class grouping chart that indicates groups of students displaying a common

weakness in any reading skill. Teachers use this information to organize needs groups and formulate a sequence of target objectives for each group.

The variety of materials, instructional approaches and organizational approaches present in the reading program in Brick Township has a direct bearing on the process of establishing a four-quarter curriculum for reading instruction. First, each instructional approach and set of materials contain a somewhat different sequence of skills and objectives at each reading level and/or grade level. Second, the typical classroom will have three or more reading groups and skill sequences at different reading levels. Finally, many teachers have established needs groupings based on still other commonly shared sequences of skill deficiencies. All these factors make it extremely difficulty to predict, in a general fashion, what various segments of the reading skill sequence will be present in each classroom at a given grade level, during a given quarter of the school year. At the actual time instructional will occur, different skill sequences will be present appropriate to the particular needs of the groups within the particular class. Thus, any segmentation of the reading curriculum which is formu-

lated at any grade level would, at best, represent reality for only a narrow range of students. Consequently, for the purposes of the ESY project the more rationale procedure is to preserve the reading curriculum as a grades 1 to 5 continuum and leave the day to day segmentation of reading instruction to the individual classroom teacher based on the needs and abilities of the children assigned to her, and the grouping and skill sequences those particular needs and abilities demand.

Spelling and Penmanship. The objectives of the spelling segment of the language arts curriculum are implemented at Lanes Mill Elementary School through the use of the Lyons and Carnahan Word Book program. A segmentation of the spelling curriculum suitable to the purposes of the ESY calendar already exists. At present, the curriculum is divided into 36 weekly units. These units can be easily matched to the weeks of the ESY school year.

The penmanship curriculum is taught through the use of the Zaner-Blosen Expressional Growth Through Hand Writing program at Lanes Mill Elementary School. As is the case with the spelling curriculum, the penmanship curriculum is divided into a series of weekly units which

can be easily matched to the weeks of the ESY school year. No further segmentation is necessary.

Composition. The objectives of the english composition segment of the language arts curriculum is taught through the use of the American Book Company program Growth with our Language Today. The curriculum is composed of a series of units at each grade level. The segmentation procedure consists of assembling appropriate unit clusters to form the four instructional quarters of the ESY calendar. The necessary grouping are provided as Tables 6.2 to 6.6

Table 6.2
Language Arts/Composition-Our Language Today
ESY Quarter-Year Unit Plan Grade One

First Quarter		Second Quarter	
Unit 1:	Our language in print	Unit 3:	Words and names
Unit 2:	Writing telling sentences	Unit 4:	Questions-where?
		Unit 5:	Sentences-Part I
Third Quarter		**Fourth Quarter**	
Unit 6:	Action words and connecting words	Unit 9:	Words that describe
Unit 7:	Sentences-Part II	Unit 10:	Review
Unit 8:	Questions-Who? What? Where? How? Why?		

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Unit 1
Second	Session:	Units 2, 3 and 4
Third	Session:	Units 5, 6 and 7
Fourth	Session:	Units 8 and 9
Fifth	Session:	Unit 10

Track C (15-45-45-45-32)

First	Session:	Unit 1 (½)
Second	Session:	Units 1 (½) 2, and 3
Third	Session:	Units 4, 5 and 6
Fourth	Session:	Units 7 and 8
Fifth	Session:	Units 9 and 10

Table 6.3
Language Arts/Composition-Our Language Today
ESY Quarter-Year Unit Plan Grade Two

First Quarter	Second Quarter
Unit 1: Words and letters	Unit 5: The letter
Unit 2: Word rules	Unit 6: Synonyms
Unit 3: Signs and signals	Unit 7: More naming words
Unit 4: Name words	Unit 8: Describing words
Third Quarter	**Fourth Quarter**
Unit 9: Sentences and stories	Unit 13: Types of words
Unit 10: Synonyms and antonyms	Unit 14: Titles
Unit 11: Sounds and letters	Unit 15: Review
Unit 12: Who? What? Where? When? Why?	

START-UP ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1, 2 and 3
Second	Session:	Units 4, 5, 6 and 7
Third	Session:	Units 8, 9 and 10
Fourth	Session:	Units 11, 12, 13 and 14
Fifth	Session:	Unit 15

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2, 3, 4 and 5
Third	Session:	Units 6, 7, 8 and 9
Fourth	Session:	Units 10, 11, 12 and 13
Fifth	Session:	Units 14 and 15

Table 3.4
Language Arts/Composition-Our Language Today
ESY Quarter-Year Unit Plan Grade Three

First Quarter		Second Quarter	
Unit 1:	Building sentences	Unit 4:	Friendly letters
Unit 2:	Telling stories	Unit 5:	Learning about verbs
Unit 3:	Learning about nouns	Unit 6:	Playacting stories-expression

Third Quarter			
Unit 7:	Writing paragraphs	Unit 10:	Improving sentences
Unit 8:	Working with facts-reports	Unit 11:	Enjoying poetry
Unit 9:	Enjoying books		

START-UP ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1 and 2
Second	Session:	Units 3, 4 and 5
Third	Session:	Units 6, 7 and 8
Fourth	Session:	Units 9 and 10
Fifth	Session:	Unit 11

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2, 3 and 4
Third	Session:	Units 5, 6 and 7
Fourth	Session:	Units 8 and 9
Fifth	Session:	Units 10 and 11

Table 6.5
Language Arts/Composition-Our Language Today
ESY Quarter-Year Unit Plan Grade Four

First Quarter		Second Quarter	
Unit 1:	Sentences	Unit 4:	Kinds of letters
Unit 2:	Speaking and listening	Unit 5:	Verbs and adverbs
Unit 3:	Nouns and adjectives	Unit 6:	Explaining things

Third Quarter		Fourth Quarter	
Unit 7:	Kinds of paragraphs	Unit 10:	Improving sentences
Unit 8:	Using the dictionary	Unit 11:	Plays and playacting
Unit 9:	Building a report		

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1 and 2
Second	Session:	Units 3, 4 and 5
Third	Session:	Units 6, 7 and 8
Fourth	Session:	Units 9 and 10
Fifth	Session:	Unit 11

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2, 3 and 4
Third	Session:	Units 5, 6 and 7
Fourth	Session:	Units 8, 9 and 10 (½)
Fifth	Session:	Units 10 (½) and 11

Table 6.6
Language Arts/Composition-Our Language Today
ESY Quarter-Year Unit Plan Grade Five

First Quarter		Second Quarter	
Unit 1:	Examining sentences	Unit 3:	Using nouns and verbs
Unit 8:	Using the dictionary	Unit 5:	Adjectives and adverbs

Third Quarter	Fourth Quarter
Unit 9: Finding facts for reports	Unit 2: Speaking and writing
Unit 7: Using pronouns	Unit 10: Improving sentences
Unit 6: Improving your paragraphs	Unit 4: Examining newspapers

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Unit 1
Second	Session:	Units 8 and 3
Third	Session:	Units 5, 9 and 7
Fourth	Session:	Units 6, 2 and 10
Fifth	Session:	Unit 4

Track C (15-45-45-45-32)

First	Session:	Unit 1 (½)
Second	Session:	Unit 1 (½), 8 and 3
Third	Session:	Units 5 and 9
Fourth	Session:	Units 7, 6 and 2
Fifth	Session:	Units 10 and 4

The Mathematics Program

The ESY project in Brick Township arrives at a time of change in the elementary mathematics curriculum and in the instructional materials used to implement that curriculum. The new curriculum will be instituted for the 1975-76 school year along with the new basal mathematics program for the elementary level, the Holt School Mathematics program. However, at Lanes Mill Elementary School, the target school for the ESY Pilot Project, the new materials will only be adopted at the

first and second grade levels. Grades 3, 4 and 5 will still employ the earlier basal program Exploring Elementary Mathematics. The rationale is an economic one. The non-consumable materials at the upper primary levels are of such recent vintage and purchase that immediate replaced at Lanes Mill Elementary would be fiscally unsound. This is not the case for the materials used in grades 1 and 2 which are consumed each year and, therefore, easily replaced.

The use of a single unified curriculum in grades 1 through 5 at Lanes Mill Elementary School would normally suggest a single segmentation procedure in implementing the ESY calendar. However, certain features of the new materials to be used in grades 1 and 2 make two separate segmentation procedures advantageous. One procedure is used in segmenting the mathematics curriculum at grades 1 and 2, while a separate procedure is used at grades 3, 4 and 5. Each is explained below.

The guide for the new curriculum in mathematics contains, among other things, a series of "pacing charts". There is one pacing chart for each grade level. Each pacing chart divides the units and objectives of the mathematics curriculum for that particular grade level

into three sets of 170 daily lesson plans that are coordinated with the Holt School Mathematics program. One set of lesson plans is appropriate to a slower learning rate, one to an average rate, and one to an accelerated learning rate. (A sample page from the first grade pacing chart is included as Table 6.7). By using the pacing chart designated for her grade level and the mathematical abilities of her students, the teacher using the Holt School Mathematics program is provided with a day by day segmentation of the mathematics curriculum appropriate to her class.

Since the ESY teachers in grades 1 and 2 at Lanes Mill Elementary School will be using the Holt School Mathematics program, the pacing charts in the curriculum guide will serve as a more than adequate segmentation for the purposes of the ESY calendar at those grade levels. The teacher simply matches the academic day number from the ESY calendar with the day number on the pacing chart.

ESY teachers at Lanes Mill Elementary School at the third, fourth and fifth grade levels will be using Exploring Elementary Mathematics as their basal program.

Table 6.7
Sample Pacing Chart-Holt School Mathematics

PACING CHART - GRADE 1 (continued)

DAY	LEVEL A (Remedial)	LEVEL B (Average)	LEVEL C (Accelerated)
21	27 All (pnl 1 guided) 28 All (pnl 1-2 guided)	27 All (pnl 1 guided) 28 All (pnl 1 guided)	31 All (pnl 1 guided)
22	29 All (pnl 1-3 guided)	29 All (pnl 1-2 guided)	32 All (pnl 1 guided)
23	30 All (pnl 1-3 guided)	30 All (pnl 1-2 guided)	33 All (pnl 1-2 guided) 34 All
24	31 All (pnl 1-3 guided)	31 All (pnl 1-2 guided)	35 All (guided)
25	32 All (pnl 1-3 guided)	32 All (pnl 1-2 guided)	36 All
26	33 All (guided) 34 All (pnl 1 guided)	33 All (pnl 1-3 guided) 34 All	37 All (pnl 1-2 guided)
27	35 All (guided)	35 All (guided)	38 All
28	36 All (pnl 1-2 guided)	36 All (pnl 1 guided)	39 All (pnl 1 guided) 40 All
29	37 All (guided)	37 All (guided)	41 All (pnl 1-2 guided) 42 All 43 All (pnl 1-2 guided) 44 All
30	38 All (guided)	38 All (pnl 1 guided)	45 All (pnl 1 guided) 46 All
31	39 All (pnl 1-2 guided) 40 All (pnl 2-4 guided)	39 All (pnl 1-2 guided) 40 All (pnl 2-3 guided)	47 All 48 All (pnl 1 guided)
32	41 All (pnl 1-2 guided) 42 All	41 All (pnl 1-2 guided) 42 All	49 All (pnl 1-3 guided) 50 All
33	43 All (pnl 1-2 guided) 44 All	43 All (pnl 1-2 guided) 44 All	51 All (pnl 1 guided) 52 All
34	45 All (pnl 1 guided) 46 All	45 All (pnl 1 guided) 46 All	53 All (pnl 1-2 guided) 54 All
35	47 All (pnl 1 guided)	47 All (pnl 1 guided) 48 All (pnl 1 guided)	55 All (pnl 1-2 guided) 56 All
36	48 All (pnl 1 guided)	49 All (pnl 1-3 guided) 50 All	57 All (pnl 1 guided) 58 All
37	49 All (guided) 50 All	51 All (pnl 1-2 guided) 52 All	59 All 60 All (pnl 1 guided)
38	51 All (pnl 1-2 guided) 52 All	53 All (pnl 1-2 guided) 54 All	61 All (guided) 62 All
39	53 All (pnl 1-2 guided) 54 All	55 All (pnl 1-2 guided) 56 All	63 All (pnl 1-2 guided) 64 All (pnl 1-2 guided)
40	55 All (pnl 1-2 guided) 56 All	57 All (pnl 1 guided) 58 All	65 All (pnl 1-2 guided) 66 All

Since this program is being phased out, no pacing charts are available. Instead, the objectives of the mathematics curriculum are specified through a series of instructional units at each grade level. Therefore, at these levels the segmentation procedure consists of putting together appropriate units to form each of the four quarters of the ESY calendar. The necessary groupings are provided in Tables 6.8 to 6.10. As is the case for other subject areas, the charts are based on input from the ESY staff.

Table 6.8
Mathematics Curriculum-Exploring Elementary Mathematics
ESY Quarter-Year Unit Plan Grade Three

First Quarter

Unit 1: Numbers and numerals
Unit 2: Addition and subtraction-Part I
Unit 3: Addition-Part II
Unit 4: Subtraction-Part II

Second Quarter

Unit 5: Geometry and measurement-Part I
Unit 6: Multiplication and division-Part I
Unit 7: Numeration, addition and subtraction-Part III

Third Quarter

Unit 8: Multiplication and division-Part II
Unit 9: Multiplication and division-Part III

Fourth Quarter

Unit 10: Fractions
Unit 11: Geometry and measurement-Part II

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1 and 2
Second	Session:	Units 3, 4 and 5
Third	Session:	Units 6, 7 and 8
Fourth	Session:	Units 9 and 10
Fifth	Session:	Unit 11

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2, 3 and 4
Third	Session:	Units 5, 6 and 7
Fourth	Session:	Units 8 and 9
Fifth	Session:	Units 10 and 11

Table 6.9
Mathematics Curriculum-Exploring Elementary Mathematics
ESY Quarter-Year Unit Plan Grade Four

First Quarter

Unit 1: Numbers and numerals
Unit 2: Addition of whole numbers
Unit 3: Subtraction at whole numbers

Second Quarter

Unit 5: Multiplication and division-basic facts
Unit 6: Multiplication of whole numbers

Third Quarter

Unit 7: Division of whole numbers
Unit 4: Geometry-Part I
Unit 9: Fractions

Fourth Quarter

Unit 10: Addition and subtraction with fractions
Unit 8: Geometry-Part II

START-UP YEAR ALTERNATES

Track B (30-45-45-45-16)

First	Session:	Units 1 and 2
Second	Session:	Units 3 and 5
Third	Session:	Units 6, 7 and 4
Fourth	Session:	Units 9 and 10
Fifth	Session:	Unit 8

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2 and 3
Third	Session:	Units 5 and 6
Fourth	Session:	Units 7, 4 and 9
Fifth	Session:	Units 10 and 8

Table 6.10
Mathematics Curriculum-Exploring Elementary Mathematics
ESY Quarter-Year Unit Plan Grade Five

First Quarter

Unit 1: Numeration and number
Unit 2: Addition and subtraction
Unit 3: Multiplication and division
Unit 5: Factors and multiples

Second Quarter

Unit 6: Extending basic operations
Unit 7: Multiplication and division of fractions

Third Quarter	Fourth Quarter
Unit 9: Addition and subtraction of fractions	Unit 10: Decimals
Unit 4: Geometry-Part I	Unit 11: Graphs
	Unit 12: Measurement
	Unit 8: Geometry-Part II

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1, 2 and 3
Second	Session:	Units 5 and 6
Third	Session:	Units 7 and 9
Fourth	Session:	Units 4, 10 and 11
Fifth	Session:	Units 12 and 8

Track C (15-45-45-45-32)

First	Session:	Units 1 and 2
Second	Session:	Units 3, 5 and 6 (½)
Third	Session:	Units 6 (½), 7 and 9 (½)
Fourth	Session:	Units 9 (½), 4 and 10
Fifth	Session:	Units 11, 12 and 8

The Social Studies Program

At Lanes Mill Elementary School, the goals and objectives of the grades 1 through 5 social studies curriculum are actualized by a variety of materials. The first, second and third grades employ materials from the Concepts in Social Science program by Laidlaw. The fourth grade study of New Jersey specified by the curriculum is presented through the co-basal vehicles of Exploring New Jersey, a Follett program, and You, New Jersey and the World authored by John T. Cunningham, a leading authority on New Jersey

history. The fifth grade curriculum of United States studies is implemented through the Follett program, Exploring Regions of the United States.

As in many other subject areas of the primary curriculum, instruction is currently presented through a series of units at each grade level. These units are easily assembled into clusters to form each of the four-quarters of the ESY instructional calendar. Tables 6.11 to 6.15 specify the appropriate ESY segmentation.

Table 6.11
Social Studies-Concepts in Social Studies
ESY Quarter-Year Unit Plan Grade One

First Quarter	Second Quarter
Unit 1: People and homes	Unit 2: Work and play
Third Quarter	**Fourth Quarter**
Unit 3: Maps and globes	Unit 4: People in West Africa Unit 5: Our country

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16) or Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Unit 2
Third	Session:	Unit 3
Fourth	Session:	Unit 4
Fifth	Session:	Unit 5

Table 6.12
Social Studies-Concepts in Social Studies
ESY Quarter-Year Unit Plan Grade Two

First Quarter	Second Quarter
Unit 1: Maps and globes	Unit 2: Communities Unit 3: Communities in warm lands
Third Quarter	**Fourth Quarter**
Unit 4: Communities in cold lands Unit 5: Cities around the world	Unit 6: Freedom in America

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16) or Track C (15-45-45-45-32)

First	Session:	Unit 1 (½)
Second	Session:	Units 1 (½) and 2
Third	Session:	Units 3 and 4
Fourth	Session:	Units 5 and 6 (½)
Fifth	Session:	Unit 6 (½)

Table 6.13
Social Studies-Concepts in Social Studies
ESY Quarter-Year Unit Plan Grade Three

First Quarter	Second Quarter
Unit 1: Map skills Unit 2: Living in the desert	Unit 3: Living in western coastal lands Unit 4: Living in tropical rain forest
Third Quarter	**Fourth Quarter**
Unit 5: Living on plains Unit 6: Living in mountains	Unit 7: Man and his resources Unit 8: Stories about our country

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Unit 1
Second	Session:	Units 2 and 3
Third	Session:	Units 4 and 5
Fourth	Session:	Units 6, 7 and 8 (½)
Fifth	Session:	Unit 8 (½)

Track C (15-45-45-45-32)

First	Session:	Unit 1 (½)
Second	Session:	Units 1 (½) 2 and 3
Third	Session:	Units 4 and 5
Fourth	Session:	Units 6 and 7
Fifth	Session:	Unit 8

Table 6.14
Social Studies-Exploring New Jersey
ESY Quarter-Year Unit Plan Grade Four

First Quarter		Second Quarter	
Unit 1:	Map and globe skills	Unit 4:	Explorers and early settlers
Unit 2:	Geography of New Jersey	Unit 5:	Colonial life
Unit 3:	Indians of New Jersey		

Third Quarter		Fourth Quarter	
Unit 6:	Revolutionary War	Unit 9:	Transportation and Communication
Unit 7:	Agriculture	Unit 10:	Government
Unit 8:	Industry		

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1 and 2
Second	Session:	Units 3 and 4
Third	Session:	Units 5, 6 and 7
Fourth	Session:	Units 8 and 9
Fifth	Session:	Unit 10

Track C (15-45-45-45-32)

First	Session:	Unit 1
Second	Session:	Units 2 and 3
Third	Session:	Units 4 and 5
Fourth	Session:	Units 6, 7 and 8
Fifth	Session:	Units 9 and 10

Table 6.15
Social Studies-Exploring Regions of the United States
ESY Quarter-Year Unit Plan Grade Five

First Quarter	Second Quarter
Unit 1: Skills for explorers	Unit 5: Exploring New England
Unit 2: Exploring the new world	Unit 6: Exploring the Middle Atlantic States
Unit 3: Exploring our nation	Unit 7: The founding of our nation
Unit 4: Exploring the Southeast	

Third Quarter	Fourth Quarter
Unit 8: Exploring the North Central States	Unit 11: The Civil War divides the nation
Unit 9: Colonial America and Williamsburg	Unit 12: Exploring the Rocky Mountain States
Unit 10: Exploring the South Central States	Unit 13: Exploring the Pacific States
	Unit 14: The United States today

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units 1, 2 and 3
Second	Session:	Units 4, 5, 6 and 7
Third	Session:	Units 8, 9 and 10
Fourth	Session:	Units 11, 12 and 13
Fifth	Session:	Unit 14

Track C (15-45-45-45-32)

First	Session:	Units 1 and 2
Second	Session:	Units 3, 4, 5 and 6
Third	Session:	Units 7, 8 and 9
Fourth	Session:	Units 10, 11 and 12
Fifth	Session:	Units 13 and 14

The Science Program

The elementary science curriculum in Brick Township is in the midst of a transition from an older, demonstration-orientated style of instruction to a newer child-centered discovery approach. As more teachers are trained in the newer instructional methodology and curriculum, the tools of instruction are also changing. The Concepts in Science program is being replaced by the Modern Elementary Science program.

At Lanes Mill Elementary School, the primary science curriculum is that which utilizes the Concepts in Science program. At each level in this program, the goals and objectives of instruction are contained in multi-week units. These units are easily grouped to form the four-quarter instructional calendar of the ESY school year. The appropriate groupings are specified in Tables 6.16 to 6.20. For those teachers already using the Modern Elementary Science program, Table 6.21

provides the proper ESY segmentation.

Table 6.16
Science Curriculum-Concepts in Science
ESY Quarter-Year Unit Plan Grade One

First Quarter		Second Quarter	
Unit A:	Making things move	Unit D:	Hot and cold
Unit B:	Moving faster	Unit E:	Cloudy or sunny
Unit C:	Up and down	Unit F:	Light and dark
Third Quarter		**Fourth Quarter**	
Unit G:	Plants and more plants	Unit I:	Living things grow
Unit H:	Animals and more animals	Unit J:	We grow
		Unit K:	Changes we see

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units A and B
Second	Session:	Units C, D, E and F
Third	Session:	Units G and H
Fourth	Session:	Unit K

Track C (15-45-45-45-32)

First	Session:	Unit A
Second	Session:	Units B, C and D
Third	Session:	Units E, F and G
Fourth	Session:	Units H and I
Fifth	Session:	Units J and K

Table 6.17
Science Curriculum-Concepts in Science
ESY Quarter-Year Unit Plan Grade Two

First Quarter		Second Quarter	
Unit A:	The very small	Unit D:	Silence and sound
Unit B:	Molecules at work	Unit E:	Darkness and light
Unit C:	Fuels at work		

Third Quarter		Fourth Quarter	
Unit F:	Plants live and grow	Unit I:	The very large
Unit G:	Animals live and grow	Unit J:	Millions of years ago and now
Unit H:	We grow and change		

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Units A and B
Second	Session:	Units C, D and E
Third	Session:	Units F and G
Fourth	Session:	Units H and I
Fifth	Session:	Unit J

Track C (15-45-45-45-32)

First	Session:	Unit A
Second	Session:	Units B, C and D
Third	Session:	Units E and F
Fourth	Session:	Units G and I
Fifth	Session:	Units H and J

Table 6.18
Science Curriculum-Concepts in Science
ESY Quarter-Year Unit Plan Grade Three

First Quarter		Second Quarter	
Unit A:	Energy from the sun	Unit C:	Beyond the earth
Unit B:	Energy at work	Unit D:	The forms of things

Third Quarter		Fourth Quarter	
Unit E:	Treasures in the earth	Unit G:	Kinds of living things-Plants
Unit F:	Kinds of living things-Animals	Unit H:	In water and on land

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Unit A
Second	Session:	Units B and C
Third	Session:	Units D and E
Fourth	Session:	Units F and G
Fifth	Session:	Unit H

Track C (15-45-45-45-32)

First	Session:	Unit B
Second	Session:	Units A and D
Third	Session:	Units E and F
Fourth	Session:	Units G and H
Fifth	Session:	Unit C

Table 6.19
Science Curriculum-Concepts in Science
ESY Quarter-Year Unit Plan Grade Four

First Quarter		Second Quarter	
Unit A:	The bounce of sound	Unit C:	Travels of a drop of water
Unit B:	The bounce of light	Unit D:	Travels of some molecules
Third Quarter		**Fourth Quarter**	
Unit E:	The fall of a tree	Unit G:	Travels of a handful of soil
Unit F:	Journeys of a salmon and a duck	Unit H:	The voyages of Halley's comet

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16) or Track C (15-45-45-45-32)

First	Session:	Unit A
Second	Session:	Units B and C
Third	Session:	Units D and E
Fourth	Session:	Units F and G
Fifth	Session:	Unit H

Table 6.20
Science Curriculum-Concepts in Science
ESY Quarter-Year Unit Plan Grade Five

First Quarter		Second Quarter	
Unit A:	The earth-inside and out	Unit C:	The earth in orbit
Unit B:	About 100 building blocks	Unit G:	Building blocks of the stars
Third Quarter		**Fourth Quarter**	
Unit D:	Building blocks of living things	Unit F:	Green cells as building blocks
Unit E:	Building blocks of the body	Unit H:	Stories in the earth

START-UP YEAR ALTERNATIVES

Track B (30-45-45-45-16)

First	Session:	Unit A
Second	Session:	Units B and C
Third	Session:	Units G and D
Fourth	Session:	Units E and F
Fifth	Session:	Unit H

Track C (15-45-45-45-32)

First	Session:	Unit H
Second	Session:	Units A and B
Third	Session:	Units C and G
Fourth	Session:	Units D and E
Fifth	Session:	Unit G

Table 6.21
Science Curriculum-Grades 1 to 5
ESY Quarter-Year Unit Plan-Modern Elementary Science

Grade 1

First Quarter:	A world full of things
Second Quarter:	Changes you can see
Third Quarter:	Looking at animals
Fourth Quarter:	Looking at plants

Grade 2

First Quarter:	More about animals
Second Quarter:	Exploring water and air
Third Quarter:	Things to hear, see and feel, Part I (pp. 128-147)
Fourth Quarter:	Things to hear, see and feel, Part II (pp. 148-169)

Grade 3

First Quarter:	Learning more about plants
Second Quarter:	The earth's rocks and soil
Third Quarter:	Working with machines
Fourth Quarter:	Mystery solids, liquids and gases

Grade 4

First Quarter:	Animals, plants and places
Second Quarter:	Your growing body
Third Quarter:	Heat as energy
Fourth Quarter:	The changing earth

Grade 5

First Quarter:	Variety in animals and plants
Second Quarter:	Air, water and weather
Third Quarter:	Electricity and magnetism
Fourth Quarter:	Changes in matter

The Special Area Programs

The special area curriculums of art, music and physical education must also be segmented to meet the scheduling requirements of the ESY calendar. However, the special areas must be segmented in an entirely different fashion from the subject areas previously discussed. The special areas must be assembled as a series of three week units at each grade level rather than as quarter-year units.

The source of the difference in segmentation procedures between special and core subject areas is the fact that special area teachers instruct all classes and grade levels all year round in an ESY calendar. Since some student group is departing on vacation and another returning at every three week interval, instructional units cannot surpass three weeks in duration. Therefore, the ESY curriculum in art, music and physical education is divided into twelve units of three weeks each.

Table 6.22
ESY Art Curriculum
Three Week Unit Plan

	GRADE 1	2	3	4	5
UNIT 1	Drawing (crayon)	Cutting Skills (collage)	Collage (paper)	Design line	Design farm
UNIT 2	Cutting Skills (paper)	3-d (paper construction)	Mobiles	Drawing	Drawing (ink, chalk)
UNIT 3	Paper Construction	Painting (tempra)	Painting	Collage	3-d Plaster
UNIT 4	Drawing (chalk/ cra-pas)	Constructing toys or games	Papier-Mache	Mobiles	Printing
UNIT 5	2-d Collage	Puppets	Drawing (chalk/ cra-pas)	3-d Construction	Weaving
UNIT 6	3-d Clay	Printing	Plaster Construction	Tissue Paper	Painting
UNIT 7	Puppets	Tissue Paper	Printing	Painting	Sculpture Clay
UNIT 8	Seasonal Project	Seasonal Project	Seasonal Project	Seasonal Project	Seasonal Project
UNIT 9	Printing	3-d Construction	Tissue Paper	Sculpture	Perspective
UNIT 10	Constructing games or toys	Drawing (chalk/ cray-pas)	3-d Construction	Puppets	Jewelry
UNIT 11	Painting (water color)	Sand Drawing	Group Class Projects	Perspective	Tissue Paper
UNIT 12	Painting (tempra finger)	Spring Mobiles	Painting	Construction games or toys	Mobiles

Table 6.23
ESY Music Curriculum
Three Week Unit Plan

	GRADE 1	2	3	4	5
UNIT 1	Song Repertoire	Exploring Music	Introduction To Music Theory-Part I	Introduction to musical instruments Part I	Music of the Eastern Seaboard
UNIT 2	Fast and slow songs	Music moves in rhythm	Introduction To Music Theory-Part II	Introduction to musical instruments Part II	Music of the Southland
UNIT 3	Songs with Dramatization		Exploring music-song repertoire	Music long ago	Music of the West
UNIT 4	Dramatization Part I	Music speaks in melody	Music moves in rhythm	Music here and now	Singing with piano-Part I
UNIT 5	Dramatization Part II		Music speaks in melody-Part I	Singing with piano Part I	Introduction to American Musical Theatre
UNIT 6	Animal rhythms	Music is Expression	Music speaks in melody-Part II	Singing with piano-Part II	American Composers Part I
UNIT 7	Machine rhythms		Music is Expression Part I	Music theory	American Composers Part II
UNIT 8	Rhythm Instruments Part I	Music has Design	Music is Expression Part II	Introduction to European Composers	Rock Music Part I
UNIT 9	Rhythm Instruments Part II		Music has Design Part I	Composers Part I	Rock Music Part II
UNIT 10	Rhythm Instruments Part III	Music combines tones	Music has Design Part II	Composers Part II	Singing with piano-Part II
UNIT 11	Song Repertoire Part I		Music combines notes-Part I	Composers Part III	Singing with piano-Part III
UNIT 12	Song Repertoire Part II	More music to explore	Music combines notes-Part II	Singing with piano-Part III	Singing with piano-Part IV

Table 6.24
ESY Physical Education Curriculum
Three Week Unit Plan

	GRADE 1	2	3	4	5
UNIT 1	Basic movement	Basic movement	Introductio to exercises	Physical fitness test	Fitness test
UNIT 2	Rhythmic activities	Rhythmic activities	Soccer circuit training	Soccer	Soccer
UNIT 3	Apparatus	Apparatus	Apparatus	Apparatus	Apparatus
UNIT 4	Singing games	Singing games	Singing games	Square dancing	Square dancing
UNIT 5	Games of low organization	Games of low organization	Games and relays	Games and relays	Games and relays
UNIT 6	Stunts, tumbling and self-testing	Stunts, tumbling and self-testing	Stunts, tumbling and self-testing	Stunts, tumbling and self-testing	Stunts, tumbling and self-testing
UNIT 7	Movement Exploration	Movement Exploration	Basketball	Basketball	Basketball
UNIT 8	Astronaut drills Hoops	Astronaut drills Hoops	Gymnastics	Gymnastics	Gymnastics
UNIT 9	Mimetics and Story play	Mimetics and Story play	Movement exploration	Volleyball	Volleyball
UNIT 10	Ribbon dance Parachute	Ribbon dance Parachute	Folk dancing	Folk Dancing	Folk Dancing
UNIT 11	Rope Jumping	Rope Jumping	Softball	Softball	Softball
UNIT 12	Mr. Peanuts Fitness test	Mr. Peanuts Fitness test	Physical Fitness test	Physical Fitness test	Physical Fitness test

SMILE: AN INTERSESSION PROGRAM

The ESY calendar provides a unique opportunity for intersession activities not afforded by the traditional school calendar. Under the ESY calendar, the student will be returning to the same grade and teacher after three of his intersession vacations. Each of these three week vacations can be used for voluntary instructional programs that would receive immediate follow-up and reinforcement by the student's teacher at the start of the next instructional period. This is not the case during the traditional school calendar where the student's summer vacation amounts to ten weeks and he returns to a new teacher and grade level.

One voluntary instructional program for the intersession periods is the SMILE (Student Module for an Independent Learning Enviornment) packet. SMILE packets were designed especially for the Brick Township 45/15 ESY project. Each SMILE packet would contain a series of short games and activities designed to reinforce skills or concepts previously taught or to enrich certain subject area topics which some children may wish to pursue in depth. Most of the games and activities are designed to

include parental or familial participation to enhance the motivational value of the SMILE packet. Also, in keeping with the positive motivation philosophy of the SMILE program, the selection and use of any packet during an intersession period would be voluntary. In all, a series of more than forty SMILE packets are envisioned, spanning grade levels 1 to 5 in a wide range of topics and levels of challenge.

The component parts of any SMILE packet would conform to a standard format. Housing the materials is a pocketed file folder with the SMILE emblem on the front. The individual packet title is listed on a small label in the lower right-hand corner.

Inside, the first sheet of the SMILE folder is a letter to parents explaining the voluntary nature and educational benefits of the program and encouraging parential participation. This letter is followed by a feedback sheet which asks for parential reactions to the packet and for suggestions for improvement. The third sheet within the SMILE packet is a set of simple general instructions and the statement of the objective

of that particular SMILE packet. Finally, the remaining pages of the packet contain the games and activities designed to reinforce or enrich the skill or concept targeted by that packet. Sample copies of all of the above described materials are included in this report as Appendixes C, D, E and F.

CHAPTER VII

FINANCIAL IMPLICATIONS

New Jersey Department of Education*

When determining the financial implications of implementing a 45/15 calendar, two categories must be analyzed. The first category is Operational Costs and the second is Capital Outlay.

OVERVIEW OF OPERATING COSTS RELATED TO OPERATING LANES MILL SCHOOL ON AN ESY SCHEDULE

The following information represents a cost benefit analysis of the operational costs of Lanes Mill Elementary School, Brick Township, New Jersey. The study uses three sets of data in the analysis. The three sets of data are defined as follows:

Hypothetical - these figures represent the operational costs of Lanes Mill Elementary School with a student enrollment of 640 (capacity) on a traditional calendar, 180 days, September to June.

Actual - these figures represent the operational costs of Lanes Mill Elementary School with a student

*Dr. William Volk and Mr. Bruce Campbell of the New Jersey State Department of Education analyzed the data treated in this chapter which was supplied by Mr. Frederick J. Underwood, Project Director.

- enrollment of 737 (668 full-time equivalents considering 130 K and 6 others on a half-time basis) on a traditional school year calendar, 180 days, September to June.

Projected - these figures represent the operational costs of Lanes Mill Elementary School with a student enrollment of 850 full-time students on a 45/15 Extended School Year calendar, 240 days, June to June.

All figures are based on actual operational expenditures for Lanes Mill Elementary School for the traditionally scheduled school year 1973-74. The treatment of the data in the projected or Extended School Year assumes a reasonable balance among the four groups of students as they are distributed throughout the school year. Each group should contain approximately 215 students. Whenever the school is in session, there should be three groups or approximately 640 students enrolled.

Table 7.1
Traditional Calendar
640/180 days
(Hypothetical)

		Cost	Per Pupil Expenditure
A.	Principal (1)	27,342.00	42.72
B.	Secretary (1)	6,301.00	9.85
C.	Clrm. Teachers (22 @ 13,800.00)	303,600.00	474.38
D.	Librarian (1)	15,270.00	23.86
	Art (1)	9,700.00	15.16
	Phys. Ed. (1)	8,800.00	13.75
	Music (1 1/10) (9700. + 880.)	10,580.00	16.53
	Speech (3/5) (12,525.)	7,515.00	11.74
	Title I Instr. (1)	18,545.00	28.98
	Nurse (1)	8,642.00	13.50
	Rem. Reading (1/10)	1,787.00	2.79
E.	Custodians (3) (@9,083.00)	27,249.00	42.58
	Matron (6 hr. 10 mo.)	3,972.00	6.21
	Food Serv. Emp. (16 x 185) (13 x 185)	5,365.00	8.38
F.	Hospitalization		
	Married (35 x 60% x 402.00)	8,442.00	13.19
	Single (35 x 40% x 147.00)	2,058.00	3.22
	Pension (3.5% x 454.668)	15,913.00	24.86
	F.I.C.A. (5.85 x 414,911)	24,272.00	37.93
G.	Textbooks (640 x $12.00)	7,680.00	12.00
	Lib. Books + Ref. Materials (640 x $4.00)	2,560.00	4.00
	Newspapers and Periodicals (640 x $1.00)	640.00	1.00
	AVA Material (640 x $4.00)	2,560.00	4.00
	Lib. other Exp. (640 x .50)	320.00	.50
	Misc. Supp. for Instr. (640 x $2.00)	1,280.00	2.00
	Misc. Exp. for Instr. (640 x $1.00)	640.00	1.00
H.	Maintenance	15,961.00	24.94
I.	Custodial Supplies	2,362.00	3.69
J.	Utilities		
	Gas	3,131.00	4.89
	Electric	7,007.00	10.95
	Telephone	730.00	1.14
K.	Transportation		
	14 buses	36,608.00	57.20
	TOTALS:	$586,832.00	$916.94

Table 7.2
Existing Calendar
668/180 days
(Actual)

		Cost	Per Pupil Expenditure
A.	Principal (1)	27,342.00	40.93
B.	Secretary (1)	6,301.00	9.43
C.	Clrm. Teachers		
	(23 @ 13,800.00)	317,400.00	475.15
D.	Librarian (1)	15,270.00	22.86
	Art (1)	9,700.00	14.52
	Phys. Ed. (1)	8,800.00	13.17
	Music (1 1/10) (9700. + 880.)	10,580.00	15.84
	Speech (3/5) (12,525.00)	7,515.00	11.25
	Title I Instr. (1)	18,545.00	27.76
	Nurse (1)	8,642.00	12.94
	Rem. Read. (1/10)	1,787.00	2.68
E.	Custodians (3 @ 9083.00)	27,249.00	40.79
	Matron (6 hr. 10 mo.)	3,972.00	5.95
	Food Serv. Emp. (16 x 185)		
	(13 x 185)	5,365.00	8.03
F.	Hospitalization		
	Married (36 x 60% x 402.00)	8,844.00	13.24
	Single (36 x 40% x 147.00)	2,058.00	3.08
	Pension (3.5% x 468,468)	16,396.00	24.54
	F.I.C.A. (5.85% x 427,911)	25,033.00	37.47
G.	Textbooks (668 x 12.00)	8,016.00	12.00
	Lib. Bks. + Ref. Materials		
	(668 x $4.00)	2,672.00	4.00
	Newspapers + Periodicals		
	(668 x $1.00)	668.00	1.00
	AVA Materials		
	(668 x $4.00)	2,672.00	4.00
	Lib. other exp.		
	(668 x .50)	334.00	.50
	Misc. Supp. for Instr.		
	(668 x $2.00)	1,336.00	2.00
	Misc. Exp. for Instr.		
	(668 x $1.00)	668.00	1.00
H.	Maintenance	15,961.00	23.69
I.	Custodial Supplies	2,462.00	3.69
J.	Utilities		
	Gas	3,131.00	4.69
	Electric	7,007.00	10.49
	Telephone	763.00	1.14
K.	Transportation	38,210.00	57.20
	TOTALS:	$604,699.00	$905.03

Table 7.3
ESY Calendar
850/180 days
(Projected)

		Cost	Per Pupil Expenditure
A.	Principal (1)	27,342.00	32.17
B.	Secretary (1½)	9,951.00	11.71
C.	Clrm. Teachers (29 @ 13,800.00)	400,200.00	470.82
D.	Librarian (1)	18,324.00	21.56
	Art (1)	11,640.00	13.69
	Phys. Ed. (1)	10,560.00	12.42
	Music (1 1/5) (11,640.00 + 1,760.00)	13,400.00	15.76
	Speech (1)	12,525.00	14.73
	Title I Instr. (1)	22,254.00	26.18
	Nurse (1)	10,370.00	12.20
	Rem. Read. (1/5)	3,574.00	4.20
E.	Custodians (4 @ 9,083.00)	36,332.00	42.74
	Matron (6 hr. 12 mo.)	4,766.00	5.61
	Food Serv. Emp. (16 x 22.50 x60) (13 x 18.75 x60)	7,840.00	9.22
F.	Hospitalization		
	Married (44 x 60% x 402.00)	10,452.00	12.30
	Single (44 x 40% x 147.00)	2,646.00	3.11
	Pension (3.5% x 589,078	20,618.00	24.26
	F.I.C.A. (5.85% x 536,558)	31,389.00	36.93
G.	Textbooks (640 x 12.00)	7,680.00	9.04
	Lib. Books + Ref. Materials (640 x 4.00)	2,560.00	3.01
	Newspapers + Periodicals (640 x 1.00)	640.00	0.75
	AVA Materials (850 x 4.00)	3,400.00	4.00
	Lib. other exp. (850 x .50)	425.00	0.50
	Misc. Supp. for Instr. (850 x 2.00)	1,700.00	2.00
	Misc. Exp. for Instr. (850 x 1.00)	850.00	1.00
H.	Maintenance	15,961.00	18.78
I.	Custodial Supplies	3,137.00	3.69
J.	Utilities		
	Gas	3,131.00	3.68
	Electric	8,000.00	9.41
	Telephone	827.00	0.97
K.	Transportation		
	640 x 57.20	36,608.00	
	640 x 151.59	15,523.00	61.33
	1/6	52,131.00	
	TOTALS:	$754,625.00	$887.77

Table 7.4
Summary Chart of Costs

	HYPOTHETICAL 640/185		ACTUAL 668/185		PROJECTED 850/240		BENEFIT ESY
	Cost	Per Pupil	Cost	Per Pupil	Cost	Per Pupil	Diff: between Actual/Projected Per Pupil Cost
Item A Administration	$ 27,342	$ 42.72	$ 27,342	$ 40.93	$ 27,342	$ 32.17	$ 8.76
Item B Secretarial	6,301	9.85	6,301	9.43	9,951	11.71	-2.31
Item C Classroom Teachers	303,600	474.38	317,400	475.15	403,877	475.15	0.00
Item D Support Staff	80,839	126.31	80,839	121.02	102,647	120.74	0.28
Item E General Services	36,586	57.17	36,586	54.77	48,939	57.57	-2.80
Item F Fringe Benefits	50,685	79.20	52,331	78.30	65,105	76.60	1.73
Item G Instruc. Supplies	15,680	24.50	16,366	24.50	17,255	20.30	4.20
Item H Maintenance	15,961	24.94	15,961	23.69	15,961	18.78	4.91
Item I Custodial Supplies	2,362	3.69	2,462	3.69	3,137	3.69	0.00
Item J Utilities	10,868	16.98	10,901	16.32	11,958	14.06	2.26
Item K Transportation	36,608	57.20	38,210	57.20	52,523	61.33	-4.13
TOTALS	$586,832	$916.94	$604,699	$905.00	$758,695	$892.10	$12.90

The following represents a break-down of the expenditures within the three sets of data-hypothetical, actual and projected, according to the following itemization:

A - Administration
  Principal
B - Secretarial
C - Classroom Teachers
D - Support Staff
  Librarian
  Art
  Physical Education
  Music
  Speech
  Title I Instructor
  Nurse
  Remedial Reading
E - General Services
  Custodians
  Matron
  Food Service
F - Fringe Benefits
  Hospitalization
    Married
    Single
  Pension
  F.I.C.A.
G - Instructional Supplies
  Textbooks
  Library Books
  Newspapers + Periodicals
  Audio Visual Materials
  Library - other expenses
  Misc. supplies for Instructors
  Misc. expenses for Instructors
H - Maintenance
I - Custodial Supplies
U - Utilities
  Gas
  Electricity
  Telephone
K - Transportation

Item A - Administration

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	27,342	42.72	10.55
Actual 668/185	1	27,342	40.93	8.76
Projected 850/240	1	27,342	32.17	-----

Per Pupil Savings... $8.76

Commentary

The cost of the building principal ($27,342.00) is identified as being the same on the traditional as on the Extended School Year calendar because the principal is employed currently under a twelve month contract. Since there is a potential of his services being extended over 1/3 more students and staff, a cost benefit of $8.76 per pupil is projected in the Extended School Year over the actual (current) administrative costs.

Alternatives to accepting this benefit through revised enrollment would be either; a) increase the present principal's salary, or b) use the benefit to employ a half-time principal (8.76 x 850 = 7,446) Alternative "a" erodes some of benefit; alternative "b" could absorb the total benefit.

Item B - Secretarial

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	6301	9.85	-1.86
Actual 668/185	1	6301	9.43	-2.28
Projected 850/240	1.5	9951	11.71	-----

Per Pupil Loss...-$2.28

Commentary

Although a cost benefit could be realized by maintaining the position at one, it appeared prudent to allow for the provision of an additional .5 secretarial position in the Extended School Year to offset the increase in students and staff over the entire year. It is true that there would be no more students or staff in the building at any one time, however, the fact that the student body and the staff would change every three weeks indicates that there would be more clerical duties than in the traditional school year.

If the current status of one secretary is maintained, a cost benefit of approximately 2.00 can be realized.

Item C - Instructional Staff

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	22	303,600	474.38	3.56
Actual 668/185	23	317,400	475.15	----
Projected 850/240	29	403,877	475.15	----

Per Pupil Savings... $0.00

Commentary

Any cost benefit in this area is dependent upon extending the teachers' contracts from 10 month contracts to 12 month contracts. This is not possible with the utilization of the "lock-step" pupil teacher relationship. No cost benefit can, therefore, be expected.

Item D - Support Staff

Librarian:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	15,270	23.86	2.30
Actual 668/185	1	15,270	22.86	1.30
Projected 850/240	1	18,324	21.56	----

Per Pupil Savings.... $1.30

Art:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	9,700	15.16	1.47
Actual 668/185	1	9,700	14.52	0.83
Projected 850/240	1	11,640	13.69	----

Per Pupil Savings.... $0.83

Physical Education:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	8,800	13.75	1.33
Actual 668/185	1	8,800	13.17	0.75
Projected 850/240	1	10,560	12.42	----

Per Pupil Savings... $0.75

Music:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1.1	10,580	16.53	0.77
Actual 668/185	1.1	10,580	15.84	0.08
Projected 850/240	1.2	13,400	15.76	----

Per Pupil Savings... $0.08

Item D - Support Staff

Speech:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	.6	7,515	11.74	-2.99
Actual 668/185	.6	7,515	11.24	-3.48
Projected 850/240	1	12,525	14.73	-----

Per Pupil Loss....-$3.48

Title I Instructor:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	18,545	28.98	2.22
Actual 668/185	1	18,545	27.76	1.58
Projected 850/240	1	22,254	26.18	----

Per Pupil Savings.... $1.58

Nurse:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	8,642	13.50	1.30
Actual 668/185	1	8,642	12.94	0.74
Projected 850/240	1	10,370	12.20	----

Per Pupil Savings.... $0.74

Remedial Reading:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	.1	1,787	2.79	-1.41
Actual 668/185	.1	1,787	2.68	-1.52
Projected 850/240	.2	3,574	4.20	-----

Per Pupil Loss....-$1.52

Commentary

The cost benefit projected here is dependent on extending the present ten month contract offered to teachers to a twelve month contract. On that basis, the support staff would be providing supportive services to 1/3 more students with an increase in salary equivalent to 12/10 (1 1/6) of their regular salary. Obviously, this cost benefit would be eroded (if not eliminated entirely) if the contractual agreement between the teacher and the school district were altered to reflect a per diem rate. In that situation, there would be little or no difference in the per pupil expenditure for staff salaries between the traditional school year calendar and the Extended School Year calendar.

The losses that appear to occur in the speech and remedial reading areas are a result of doubling the services rendered while increasing the enrollment by only 1/3; this is an option, it is not a necessity. If each of these services were increased 1/3 (1/3 of 3/5 = 1/5 for speech; 1/3 of 1/10 = 1/30 for remedial reading), there would be a cost benefit for the Extended School Year calendar of $0.64 for speech and $0.51 for remedial reading.

Item E - General Services

Custodial:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	3	27,249	42.58	-0.16
Actual 668/185	3	27,249	40.79	-1.95
Projected 850/240	4	36,332	42.74	-----

Per Pupil Loss...-$1.95

Commentary

It should be obvious that the reasons that a cost benefit is not realized here is because an additional full-time custodian is projected as a need. Although research studies of facilities related to year round use are in general agreement that year round use of the facility has little effect on its longevity, it appears that some concern must be extended in the area of floor maintenance. It appears to be logical to attempt to maintain the floors on a continuing basis rather than at pre-determined intervals during the year. The additional custodian would serve that purpose.

Matron:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	.8	3,972	6.21	0.60
Actual 668/185	.8	3,972	5.95	0.34
Projected 850/240	1	4,766	5.61	----

Per Pupil Savings...$0.34

Commentary

At the present time, the matron is employed for six hours a day for ten months. Since the matron would be needed six hours a day for twelve months under the Extended School Year calendar, the costs would be increased but a cost benefit would still be realized.

Food Service:

Calendar	No.	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	1	5,365	8.38	0.84
Actual 668/185	1	5,365	8.03	1.19
Projected 850/240	1.5	7,840	9.22	----

Per Pupil Savings...$1.19

Commentary

The above figures reflect the employment of two food service employees to operate the cafeteria throughout the year. The increase in the projected Extended School Year calendar is related to the necessity of offering the summer employment to employees according to seniority. It is anticipated that employees with con-

siderable longevity will apply for these two positions, thus, the maximum rate is projected. Furthermore, an additional hour (from 4 hours to 5 hours per day) per employee is projected during the summer months because only this cafeteria will be in operation, i.e., these employees would not have the support of the central food preparation service.

Item F - Fringe Benefits

Hospitalization: (Married)

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(35 x .60 x 402.)	8,442	13.19	0.89
Actual 668/185	(36 x .60 x 402.)	8,844	13.24	0.94
Projected 850/240	(44 x .60 x 402.)	10,452	12.30	----

Per Pupil Savings... $0.94

(Single)

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(35 x .40 x 147.)	2,058	3.22	0.11
Actual 668/185	(36 x .40 x 147.)	2,058	3.08	-0.03
Projected 850/240	(44 x .40 x 147.)	2,646	3.11	-----

Per Pupil Loss...-$0.03

Commentary

Because the cost of the hospital insurance covers the entire year, any additional use of staff with such coverage results in a cost benefit. Therefore, the more staff who elect the longer contract (full year) the greater the cost benefit. As may be observed, there is a significant difference between married and single coverage but this factor exists on all calendars.

Item F - Fringe Benefits

Pension:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(3.5%x 454,668)	15,913	24.86	0.60
Actual 668/185	(3.5%x 468,468)	16,396	24.54	0.28
Projected 850/240	(3.5%x 589,078)	20,618	24.26	----

Per Pupil Savings... $0.28

F.I.C.A.:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(5.85%x 414,911)	24,272	37.93	1.00
Actual 668/185	(5.85%x 427,911)	25,033	37.47	0.54
Projected 850/240	(5.85%x 536,558)	31,389	36.93	----

Per Pupil Savings... $0.54

Commentary

The small cost benefit appearing under pension expenditures is a result of the extended use of employees currently employed under twelve contracts.

The cost benefit shown under F.I.C.A. is a result of the extended use of employees after they have received $13,000 in compensation (teachers avg. 13,800).

Item G - Instructional Supplies

Textbooks:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $12)	7,680	12.00	2.96
Actual 668/185	(668 x $12)	8,016	12.00	2.96
Projected 850/240	(640 x $12)	7,680	9.04	----

Per Pupil Savings... $2.96

Library Books:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $4)	2,560	4.00	0.99
Actual 668/185	(668 x $4)	2,672	4.00	0.99
Projected 850/240	(640 x $4)	2,560	3.01	----

Per Pupil Savings... $0.99

Newspapers and Periodicals

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $1)	640	1.00	0.25
Actual 668/185	(668 x $1)	668	1.00	0.25
Projected 850/240	(640 x $1)	640	0.75	----

Per Pupil Savings... $0.25

Commentary

As may be readily observed, the above cost benefits are a result of calculations for the Extended School Year calendar based on an enrollment of 640 pupils. Although these benefits can be realized and justified, the option of providing instructional supplies on a total annual enrollment basis (850) to the school (s) in an Extended School Year is available. Any supplies purchased beyond the 640 enrolled figure for the Extended School Year would erode the cost benefits.

Item G - Instructional Supplies

AVA Materials:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $4)	2,560	4.00	0.00
Actual 668/185	(668 x $4)	2,672	4.00	0.00
Projected 850/240	(850 x $4)	3,400	4.00	----

Per Pupil Savings... $0.00

Library Other Expenses:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x .50)	320	0.50	0.00
Actual 668/185	(668 x .50)	334	0.50	0.00
Projected 850/240	(850 x .50)	425	0.50	----

Per Pupil Savings... $0.00

Misc. Supplies for Instruction:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $2)	1,280	2.00	0.00
Actual 668/185	(668 x $2)	1,336	2.00	0.00
Projected 850/240	(850 x $2)	1,700	2.00	----

Per Pupil Savings... $0.00

Misc. Expenses for Instruction:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	(640 x $1)	640	1.00	0.00
Actual 668/185	(668 x $1)	668	1.00	0.00
Projected 850/240	(850 x $1)	850	1.00	----

Per Pupil Savings... $0.00

The cost of the four above items was held constant, i.e., all costs were increased in proportion to the enrollment. The major reason for this was because the items were considered to be either expendable or in need

of replenishment. A cost benefit could be realized in audio-visual materials if it were acceptable to supply only those materials necessary for 640 students. If this proved to be acceptable, a cost benefit of approximately $1.00 could be realized in audio-visual materials. The other areas do not appear susceptible to this procedure.

Item H - Maintenance

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	73/74 Expenditure	15,961	24.94	6.16
Actual 668/185	73/74 Expenditure	15,961	23.89	5.11
Projected 850/240	73/74 Expenditure	15,961	18.78	----

Per Pupil Savings... $5.11

Commentary

The above figures reflect the logical assumption that facility maintenance would remain fairly constant regardless of the number of days that the building is in service throughout any given year. Increased costs related to custodial maintenance activities are considered under Item E (Custodian-Matron) and Item I (Custodial Supplies). If it is deemed desireable not to attempt to realize this benefit, approximately $4,500 could be added to the

Extended School Year calendar. This would bring the per pupil expenditures to the level of the current or actual per pupil expenditure.

Item I - Custodial Supplies

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	73/74 data	2,362	3.69	0.00
Actual 668/185	73/74 data	2,462	3.69	0.00
Projected 850/240	73/74 data	3,137	3.69	----

Per Pupil Savings... $0.00

Commentary

As with the expendable instructional supplies, the cost of the custodial supplies was held constant. Therefore, no difference is found between the three sets of data.

Item J - Utilities

Gas:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	73/74 data	3,131	4.89	1.21
Actual 668/185	73/74 data	3,131	4.69	1.01
Projected 850/240	73/74 data	3,131	3.68	----

Per Pupil Savings... $1.01

Commentary

The expenditure for gas for July and August is the minimal rate (4.50, 73/74). It is likely that this rate would be increased primarily through the use of the cafeteria during these months, although lunches served during these months are apt to require less cooking than lunches served during colder months. Approximately twelve (12) cents would be deducted from the cost benefit as shown for each additional one hundred (100) dollars expended for gas.

Electricity:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	73/74 data	7,007	10.95	1.54
Actual 668/185	73/74 data	7,007	10.49	1.08
Projected 850/240	73/74 data	8,000	9.41	----

Per Pupil Savings... $1.08

Commentary

Even though approximately one thousand (1000) dollars was added to the Extended School Year calendar to satisfy the cost of cooling the facility during the

summer months, a cost benefit is apparent. The additional cost in electricity is more than offset by the increased enrollment. An additional nine-hundred (900) dollars could be budgeted without increasing the per pupil expenditure.

Telephone:

Calendar	Source	Cost	Per Pupil Expenditure	Benefit ESY
Hypothetical 640/185	7./74 data	730	1.14	0.17
Actual 668/185	73/74 data	763	1.14	0.17
Projected 850/240	73/74 data	827	0.97	----

Per Pupil Savings... $0.17

Commentary

Although the per pupil cost for telephone service was held constant between the two traditional school years, an amount equal to the monthly average (64.00) was added to the Extended School Year cost. Even so, a minimal cost benefit is projected.

Item K - Transportation and Related Services

Calendar	Source	Cost	Pe · Pupil Expenditure	Benefit ESY
Hypothetical 640/185	73/74 data	36,608	57.20	-4.13
Actual 668/185	73/74 data	38,210	57.20	-4.13
Projected 850/240	73/74 data	52,131	61.33	-----

Per Pupil Loss...-$4.13

Commentary

The per pupil cost of transportation and related services was held constant between the two traditional school years. This was not deemed advisable for the Extended School Year because of the necessity of offering the routes to those drivers highest in seniority and the compulsion to pay then a full days pay for a limited number of runs. The method used to calculate the cost for the Extended School Year is as follows:

Traditional year costs - 640 students x $57.20 = $36,608.00

Summer extension - 640 students x 151.59 divided by 1/6 = $15,523.00

Total = $52,131.00

The $57.20 per pupil cost is a figure used by the transportation office. The $151.59 per pupil cost was calculated by determining the number of buses, (640 students divided by 45 = 14 busses) then multiplying the result by the number of miles traveled daily (14 x 35 mi. = 490), then multiplying the result by $1.10 operational cost per mile (490 x 1.10 = 539), then multiplying by 180 days (180 x 539 - $97,020.00), and finally dividing this total (97,020) by 1/6 (2 months).

The above figures do not reflect the fact that fourteen (14) buses are being used for twelve months in contrast to nineteen (19) buses being used for nine and one-half months. It should be noted that research by the McFadden Corporation of Detroit, Michigan, indicates that using busses on a twelve month basis does not increase the depreciation to a significant degree; age is the significant factor.[1]

Operating Costs Summary

A cost benefit of $12.90 per pupil has been projected for the Extended School Year expenditures when compared to actual expenditures during a traditional school year at Lanes Mill Elementary School. This cost benefit is related to operational costs only, capital outlay benefits are considered separately. The cost benefit is contingent on achieving a reasonable balance in scheduling the students over four calendars following the 45/15 design. Furthermore, the cost benefit may be eroded by selecting or rejecting various options that have an influence on the cost benefit.

---

[1] Person-O-Metrics, Inc., Operational Cost Benefit of Amerman Elementary School on a 45/15 Extended School Year Calendar Versus a Traditional School Calendar (Dearborn Heights, Michigan, 1972) p. F-18.

THE SUMMARY OF THE CAPITAL OUTLAY COST BENEFIT IS AS FOLLOWS

Item	Benefit ESY
Building	$ 621,440.00
Equipment	68,267.00
Interest	793,162.00
Busses	62,500.00
TOTAL:	$1,545,369.99

Note that site acquisitions costs would have to be added to the above figures, i.e., 1/3 of total site and site improvement costs.

There are capital start-up expenditures - they are:

Installation of Air-conditioning...$100,000.00 est.

Replacement of compressor in school cafeteria refrigerator.....400.00 est.

Building of rolling closets for teachers to store materials when classes are not in session.....600.00 est.

The following is a list of start-up costs in the operational section of the budget. They are in the area of personnel, transportation and utilities.

$ 3,650	Cost of acquiring 1/2 Secretary
9,083	Cost of acquiring 1 additional Custodian
794	Cost of increasing Matron salary by .2
2,475	Cost of increasing Food Handler by 1/2 person
20,021	Cost of giving Supportive Staff 12 month contracts
13,921	Increase in transportation expenditure
1,000	Electricity for air-conditioning
$50,944	...Total start-up costs

These start-up costs should not be construed as expenses attributable to the Extended School Year concept but rather to the fact that we are running an experiment. Remember that we are taking children from Veterans Memorial Elementary School and placing them in Lanes Mill School. We can take the children but not the personnel from Veterans Memorial Elementary School. This set of circumstances would not exist if the Extended School Year were more than an experiment.

Remember also that you have to pay something for an extra 213 seats.

OVERVIEW OF CAPITAL EXPENSES RELATED TO IMPLEMENTATION OF ESY IN LANES MILL SCHOOL

So that one can get an idea of what current construction costs in Brick Township are, the financial stistics on the new municipal building presently being constructed is supplied below.

53,792 sq. ft.	(includes two levels)
$2,371,074.00	Cost of Municipal Building
42.20	Cost per sq. ft.
85,000.00	Cost of Site (41 acres)
2,073.00	Cost per acre

Next, you will see a presentation of figures that show what it would cost to replace Lanes Mill School at 1972/73 prices. This is followed by what it would cost to build additional facilities sufficient enough to house the additional number of children that can be educated in Lanes Mill School with the implementation of Extended School Year.

Capital Outlay

Facility Construction

Cost of elementary school to accommodate 640 students:[2]

---

[2] Source: New Jersey State Department of Education, Bureau of Facility Planning Services, the figure represents a school facility of approximately 55,000 sq. ft. at 38.75 cost per sq. ft. Figures do not reflect the cost of a site.

Building costs:

$2,913.00 = cost per pupil
x640 = students
$1,864,320.00

Equipment Cost:

$320.00 = cost per pupil
x640 = students
$204,800.00

Total Cost:

$1,864,320.00
204,800.00
$2,069,120.00
2,379,488.00 = est. interest on 30 year bond issue
Total: $4,448,608.00

Potential Cost Benefit:

Extended School Year accommodates 1/3 (213) more students per building. Therefore, the cost benefit in facility construction can be estimated accordingly:

1/3 x $1,864,320 = $621,440.00 on buildings

1/3 x $2,069,120 = $689,707.00 on buildings and equipment

1/3 x $4,448,608 = $1,482,869.00 on building, equipment and interest

An alternative would be to construct additional classrooms on the present site. Should that alternative be exercised, the cost of eight or more classrooms at a renovation cost per sq. ft. must be calculated. As a

general rule, renovation costs per sq. ft. exceed those of new construction. The $689,707.00 calculated for 1/3 of a building and equipment may not be unrealistic a a projection for renovation.

Finally, the capital expense of buses should be considered. Because it is possible under the 45/15 Extended School Year calendar to transport 850 students in the same number of buses that is required to transport 640 students, a cost benefit can be estimated accordingly:[3]

850 divided by 45 = 19 = number of buses needed (traditional school year)
650 divided by 45 = 14 = number of buses needed (Extended School Year)
5 = number of fewer buses needed

[4]

$12,500.00 = per bus, standard equipment
x5 = number of fewer buses needed
$62,500.00 = est. cost benefit

---

[3] Mr. William Gordon, Brick Township Schools, Office of Transportation.

[4] New Jersey State Department of Education, Bureau of Pupil Transportation.

CHAPTER VIII

RECOMMENDATIONS OF THE CITIZENS ADVISORY COUNCIL

The citizens advisory committee is charged with making recommendations to the Board of Education regarding Extended School Year in Brick Township.

The committee recommends that the Extended School Year experiment, as proposed for the Lanes Mill School, not be implemented at this time. The reasons for this recommendation are as follows:

1. More time is needed to inform the public about ESY and clear up the various misunderstandings that presently exist.

2. There were no budgetary provisions for making physical changes in the plant. The experiment, therefore, could not be operated properly.

3. There is an insufficient number of volunteers to run the experiment.

The citizens advisory committee also recommends that the Extended School Year concept should not be eliminated from consideration by the Board of Education when considering direction for the future. From the information contained in this report and in the Feasibility Study, Extended School Year has merit as a viable solution to problems created by increased student enrollment.

APPENDIX A

COST BREAKDOWN: TEST MATERIALS FOR ESY PILOT PROJECT: GRADE ONE

Phase	Test Instrument	Level	Quantity	Unit	Cost Each	Total Cost
Pre-Test	California Short-Form Test of Mental Maturity	0	3 pkgs.	pkg./35	$ 8.40	$ 25.20
	Comprehensive Test of Basic Skills, Form S (machine scored)	B	3 pkgs.	pkg./35	16.45	49.35
	Practice Test 2, CTBS, Form S (Spirit Masters for above)		1	pkg./ 4	2.00	2.00
	Scoring Services CTBS, Form S	B	80	Each	.60	48.00
				Sub-total Grade One Pre-Test		$124.55
Post-Test	California Short-Form Test of Mental Maturity	1	3 pkgs.	pkg./35	8.40	25.20
	Comprehensive Test of Basic Skills, Form S (machine scored)	B	2 pkgs.	pkg./35	16.45	32.90
	Practice Test 2, CTBS, Form S (Spirit Masters for above)		1	pkg./ 4	2.00	2.00
	Scoring Services CTBS, Form S	B	80	Each	.60	48.00
				Sub-total Grade One Post-Test		$108.10

TOTAL GRADE ONE.....$232.65

APPENDIX B

COST BREAKDOWN: TEST MATERIALS FOR ESY PILOT PROJECT: GRADE TWO

Phase	Test Instrument	Level	Quantity	Unit	Cost Each	Total Cost
Pre-Test	California Short-Form Test of Mental Maturity	1	3 pkgs.	pkg./35	$ 8.40	$25.20
	Comprehensive Test of Basic Skills, Form S (machine scored)	C Partial	3 pkgs.	pkg./35	16.45	49.35
	Scoring Services CTBS, Form S	C Partial	100	Each	.60	60.00
			Sub-total Grade Two Pre-Test			$134.55
Post-Test	California Short-Form Test of Mental Maturity	1	3 pkgs.	pkg./35	8.40	25.20
	Comprehensive Test of Basic Skills, Form S (machine scored)	C Partial	3 pkgs.	pkg./35	16.45	49.35
	Scoring Services CTBS, Form S	C Partial	100	Each	.60	60.00
			Sub-total Grade Two Post-Test			$134.55

Total Grade Two..... $269.10
Total Grade One..... 232.65
Postage Estimate..... 23.25
Total ESY Test Materials*.. 525.00

*Materials for grades 4 and 5 testing provided by Brick Township Board of Education as part of annual test program.

APPENDIX C

SAMPLE SMILE PACKET LETTER TO PARENTS

Brick Township Public Schools

300 CHAMBERS BRIDGE ROAD
BRICK TOWN, NEW JERSEY 08723
TELEPHONE: 201-477-2800

OFFICE OF THE SUPERINTENDENT

Department of
Curriculum and Instruction

Dear Parents:

As a participant in the Brick Township ESY Pilot Project, your child has taken advantage of the opportunity to select a SMILE (Student Module for an Independent Learning Enviornment) packet for use during the intersession period. If your child wishes, he or she may obtain different SMILE packets for every intersession period to come.

Each packet contains a series of games and activities designed to strengthen your child's mastery of some skill or concept. Most of these games and activities provide for the involvement of you or another family member. As you know, the parent's involvement with a child's learning activity is important. By doing these activities with your child, you can show him that you support his learning efforts.

Thank you for your participation in this effort to reinforce your child's learning. We would welcome any suggestions you may have concerning this type of activity.

Sincerely,

APPENDIX D

SAMPLE SMILE PACKET FEEDBACK FORM

Dear Parent:

You have received a SMILE packet of games and activities to participate in with your child so that he can demonstrate his mastery of specific learning skills. Please fill out the following form below and return it to the school.

- -

1. Did you use the SMILE items with your child?_____

   _____

2. Were the games and activities enjoyable for you?_____

   for your child?_____.

3. Do you feel this kind of parent involvement is

   worthwhile?_____

4. Do you have any suggestions, questions or comments

   concerning your child's reading skill program?_____

   _____

   _____

   _____

APPENDIX E

SAMPLE SMILE PACKET GENERAL INSTRUCTIONS SHEET

This SMILE packet contains games and activities designed to strengthen:

_____

_____

GENERAL INSTRUCTIONS TO PARENTS

1. Be sure the game or activity situation is a light and pleasant one.

2. Let your child do his own thinking. Give him lots of time. If he is having real trouble, it is all right to give him a hint, but never give him the answer. Even if it takes several clues, your child will gain more confidence if he reaches the final answer by himself. You may wish to repeat those activities your child has difficulty with on another day.

3. Your child should perform all required actions by himself. Don't be distressed if his actions are slower than yours. Remember, be light and pleasant.

4. Do not spend too much time at any one activity session. Ten to 15 minutes is usually optimum. Always stop while the situation is still interesting.

5. Do change the wording of the instructions if it makes them more clear to your child. If your child does not understand the instructions, repeat them in your own words. Be careful not to give away any answers by your tone of voice.

APPENDIX F

SAMPLE SMILE PACKET
ACTIVITY SHEET-A READING SKILL

SHUFFLEBOARD A: (You will need a penny or a button, tape and a score sheet to play this game.)
How To Play: This is played similarly to floor shuffleboard. Tape the lower edge of the word sheet to the center of the table (about 15" from the table edge.) Players (2 or more) take turns flicking the penny with their finger (similar to a shuffleboard shove) so that the penny slides across the table and lands on one square. (If the penny lands on a line, repeat the tur...) The player must say the word correctly to score the points in the square. First player to score 50 wins.

plan 2	shake 3	span 2	crain 5	crate 5	flick 4	mave 4
blame 2	crop 4	brays 4	band 4	plate 5	flake 5	clap 2
staff 5	scrale 5	quaint 3	fame 3	blank 5	hiss 2	name 3
strait 4	damp 5	raise 5	last 2	brake 4	stamp 3	waif 4
went 2	fray 4	snake 3	thate 3	thrush 5	strain 3	hand 2
tape 2	sack 2	grain 4	inch 2	came 3	paint 3	brain 5
stray 3	spin 5	day 2	ask 2	cave 4	add 2	case 3

shap 3	risk					
haze 5	slate 4					
plane 2	cross 2					
fact 3	peg 5					
gray 2	drape 4					
black 3	fade 4					
pass 2	clay 3					